

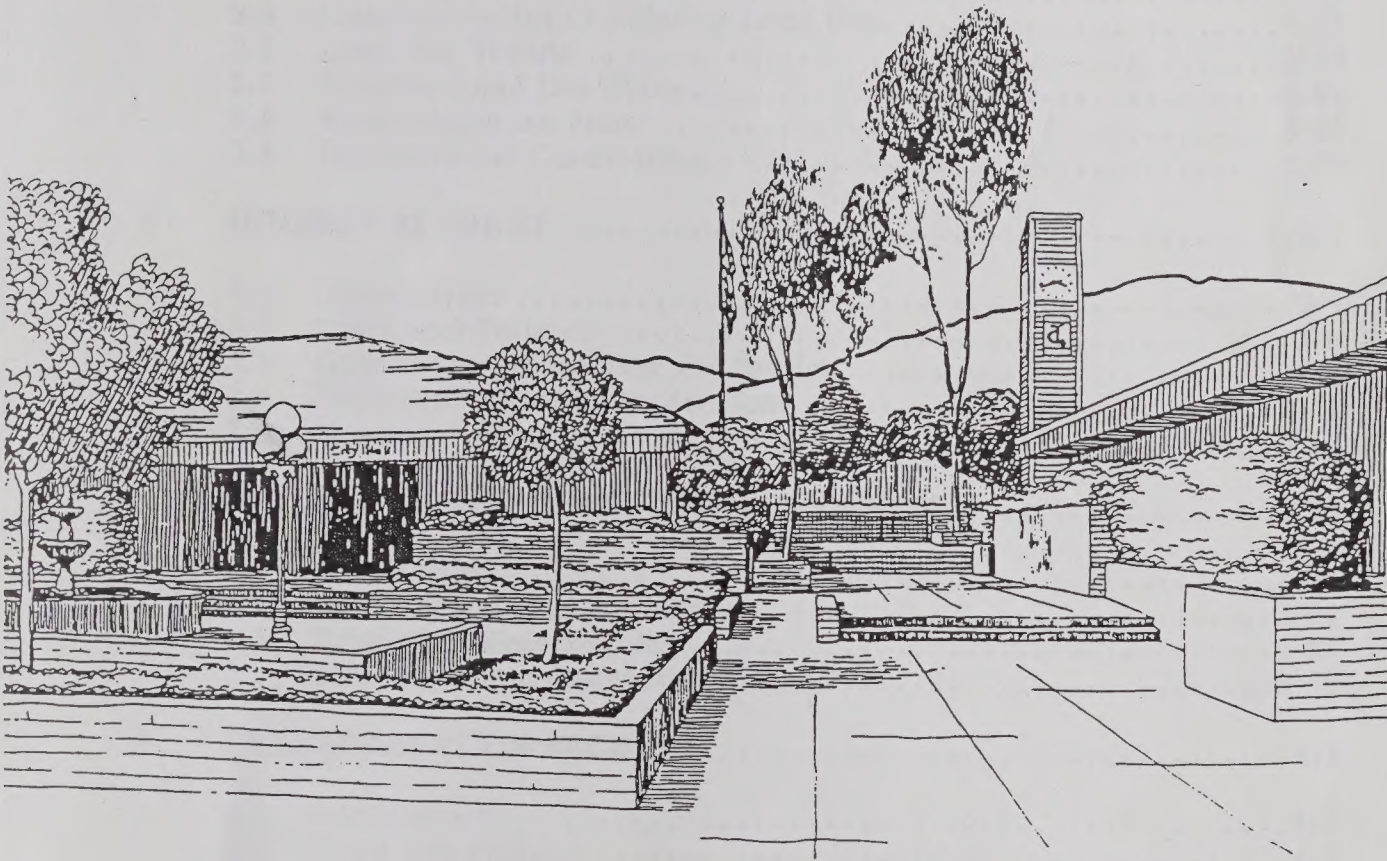
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city of duarte

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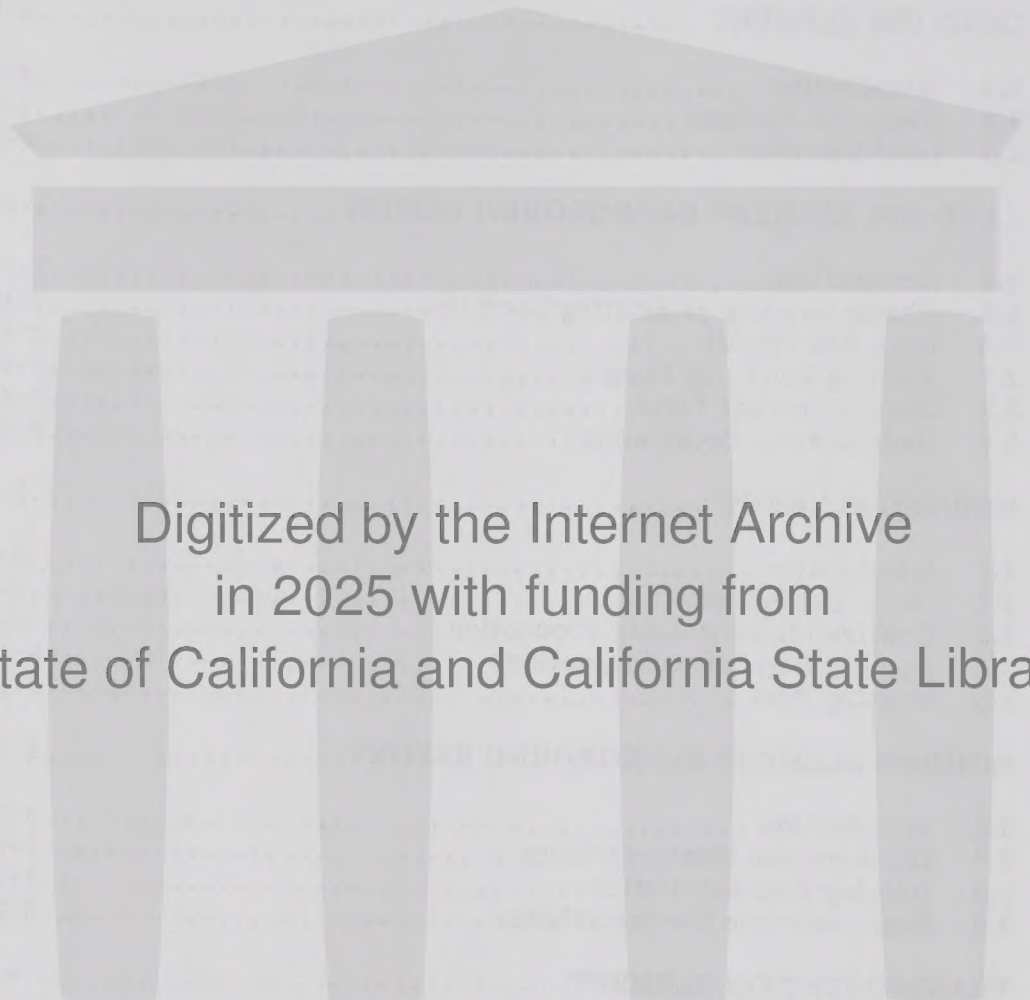
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SECTION 1

INTRODUCTION TO THE CITY OF DUARTE GENERAL PLAN

1.1 BACKGROUND TO PLANNING

Incorporated in 1957, the City of Duarte has a long history that dates back to 1841 when Don Andres Duarte petitioned Governor Juan Alvarado for a 6,000-acre land grant. In the early years, Duarte was a rural community which was famous for its citrus fruit production. The soil composition and frost free climate produced some of the finest quality oranges in the state. After the turn of the century, Duarte began a transformation period from a rural community to a urban community. This process was accelerated by the post World War II building boom that affected most communities in the southern California region. Today, Duarte is a fully urbanized city with approximately 98 percent of its urbanized area developed. Like all communities which are a part of a larger metropolitan area, Duarte is everchanging. The ability of the city to deal with both the positive and negative effects of past changes and to chart effective courses for the future will be facilitated by this General Plan.

The City of Duarte is located at the base of the San Gabriel Mountains approximately 15 miles northeast of downtown Los Angeles. Duarte is bounded by the cities of Azusa on the east, Irwindale on the south, Monrovia on the west, and the City of Bradbury and the Angeles National Forest on the north. I-210 (the Foothill Freeway) traverses Duarte from east to west and divides the urbanized portions of the city into two parts. The location of the city in a regional context is shown in Exhibit 1-1.

The city presently has a total land area of 4,352 acres (6.8 square miles). Of this total area, 2,251 acres, or 52 percent, consists of wilderness areas included within the Angeles National Forest. Most of the city, excluding the National Forest Service land holdings, is urbanized. The city's current estimated population is 21,326 persons (DOF 1989).

1.2 PURPOSE OF THE GENERAL PLAN

This General Plan will serve as the constitution of the City of Duarte and guide future planning and development in the city for many years to come. The state mandates that every local jurisdiction prepare, adopt, and maintain a general plan, as well as their scope and content. In addition, the city has elected to broaden the scope of the City of Duarte General Plan so it examines a number of issues that are unique or of special concern to the community. The major issues facing the city which are the focus of this General Plan include the following:

- Maintenance and preservation of the existing residential neighborhoods.
- Continued redevelopment and revitalization of the retail commercial areas along Huntington Drive.
- Continued emphasis on promoting new development in the industrial areas, thus providing new employment opportunities.
- Improving the quality of new development through a thorough re-examination of building and development standards.
- Cooperation with other agencies and governments in improving the environment and quality of life for both residents in the city and in the surrounding region.

1.3 ORGANIZATION OF THE GENERAL PLAN

The Duarte General Plan consists of three sections: (1) the policy plan; (2) the background reports; and (3) the environmental assessment.

The policy plan is organized around six chapters or elements. These elements focus on plans, policies, and programs that are to be implemented during the plan's lifetime. These elements include the following:

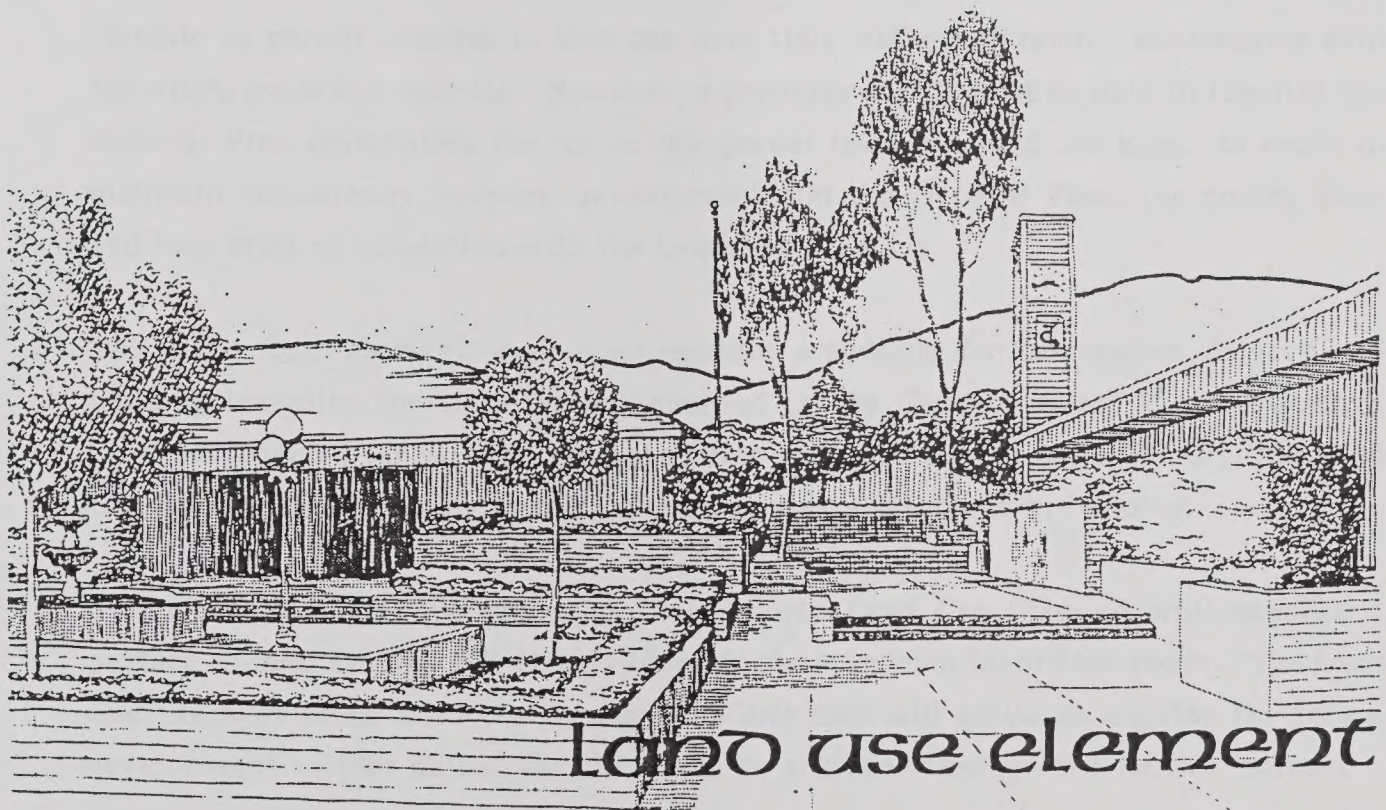
- Land Use Element. Indicates the future location and extent of development in the city.
- Housing Element. Focuses on housing issues and identifies programs to assist residents in need.
- Transportation Element. Identified existing and planned roadway and traffic characteristics and establishes standards for roadways.

- Open Space and Conservation Element. Identifies policies and programs for perserving and obtaining open space in the city. The element also identifies resources in the city and establishes policies to assist in the management, preservation, or conservation of these resources.
- Safety Element. Identifies man-made and natural hazards which may impact the city in the future.
- Noise Element. Indicates the existing and future noise environment in the city and provides for appropriate mitigation.

The background report is divided into subsections that correspond and support the individual General Plan elements. The background report provides a comprehensive overview of existing conditions in the city and contains the necessary background analysis needed to comply with both state law and the community's desire to have a sound basis future planning. In addition, the background report will serve to describe the existing environmental setting as required by the California Environmental Quality Act (CEQA).

Finally, the environmental impacts anticipated to result from the implementation of the General Plan are examined in the environmental assessment, which will serve as the environmental impact report (EIR) for the General Plan. The EIR analysis will focus on the potential changes outlined in the land use and transportation plans.

The General Plan, and the individual elements that make up the General Plan, were developed around the goals and policies selected in the preparation of the General Plan. The goals and policies chosen provide clear direction concerning the City of Duarte's long-term planning objectives.



Land use element



SECTION 2 LAND USE ELEMENT

2.1 INTRODUCTION

The Land Use Element has the broadest scope of any of the General Plan elements included in the City of Duarte General Plan. Government Code, Section 65302(A) requires that this element designate the distribution, location, and extent of residential, commercial, industrial, public, and open space lands. According to the state code, the location of a particular land use may be expressed in general terms on a map. The land use map is intended to implement the goals and policies contained throughout the Duarte General Plan.

The policies contained in the Land Use Element are intended to be compatible with policies in other elements of the General Plan. These policies are purposefully general to guide interpretation of the land use map. The land use policies need to be considered with the land use map to assess the city's intentions for future development and conservation within the community. The map is designed to be flexible to permit changes in land use over time while maintaining consistency with the city's goals and policies. However, a property owner must be able to identify the General Plan designation for his or her parcel from the land use map. In order to maintain consistency between development and the General Plan, the zoning code and map must be consistent with the Land Use Element

The Land Use Element must also contain standards for population density and building intensity for those areas governed by the General Plan. These standards must be provided for all land use categories indicated on the map. Finally, the Land Use Element must clearly identify any areas that are subject to flooding.

Through text, diagrams, and maps, the Duarte Land Use Element will establish a pattern of land use and will clearly identify the standards identified above. The Land Use Element along with the zoning code and map will serve as a guide for future development. Other objectives which will be achieved through this update include:

- to promote a balanced and functional mix of land uses consistent with community values.

- To guide public and private investments.
- To reflect the opportunities and constraints affecting land use identified in the other elements of the General Plan.
- To reduce the loss of life, injuries, damage to property, and economic and social dislocation resulting from flooding.

2.2 GOALS AND POLICIES

ISSUE: RESIDENTIAL DEVELOPMENT

The following goals and supporting policies are concerned with maintaining the character of the city's residential neighborhoods and to make every effort in ensuring that the city's housing is well maintained. In addition, new development must be compatible with the existing environment.

Goal 1:

To maintain the appearance and quality of housing in the City of Duarte.

Policies:

- 1.1 Work to eliminate and prevent deteriorating housing in the older and declining areas of the city with housing maintenance and rehabilitation programs financed by both public and private sources.

Implementation: The city will continue to participate in Community Development Block Grant (CDBG) programs aimed at assisting lower income households.

Implementation: Continue to expand the city's Housing Rehabilitation Program.

- 1.2 Encourage the elimination of substandard units and lots through redevelopment, rehabilitation, and maintenance assistance and code enforcement.

Implementation: The city will continue code-enforcement efforts aimed at property maintenance in the residential areas.

- 1.3 Provide for a variety of housing types in the city while ensuring that the existing character of residential neighborhoods are maintained.

Implementation: Enforce the provisions of the city's zoning ordinance to maintain the character of existing residential neighborhoods.

Implementation: Implement the land use map contained in the Land Use Element.

- 1.4 Hillside development must be sensitive to the local views of the hills and to the natural environment.

Implementation: Use the city's development review process to regulate hillside development.

Implementation: Implement land use policy which calls for the development of a planned development designation for the hillside areas.

- 1.5 Encourage the development of high quality, attractive multiple-family units in those areas of the city where higher density development is permitted.

Implementation: Continue to require Architectural Design Review Board approval of multiple-family projects.

Implementation: Prepare and adopt a community design manual which will encourage high quality development.

- 1.6 Every effort should be made to discourage residential development in hillside areas where development is inappropriate for safety, ecological, or aesthetic reasons.

Implementation: Every proposed development within the planned development designation must undergo environmental review.

- 1.7 New infill residential development should be compatible in design, bulk, and height with existing residential development located nearby.

Implementation: Revise the zoning ordinance to insure adequate development standards.

Implementation: Require all infill development projects to undergo review by the Architectural Design Review Board.

- 1.8 Utilize the city's design review procedures to minimize the potential adverse impacts associated with infill housing development.

Implementation: Continue to support the Architectural Design Review Board.

Implementation: Revise the zoning ordinance to provide more authority to the Architectural Design Review Board.

ISSUE: COMMERCIAL DEVELOPMENT

Commercial development is an important source of revenue for the city. The following goal and supporting policies focus on the need to encourage continued commercial growth as provided for in the land use plan, specific plans, and redevelopment plans.

Goal 2:

To provide for a wide range of commercial activities which will serve the needs of the community, provide local jobs, and be beneficial in terms of revenue generation.

Policies:

- 2.1 Permitted uses along Huntington Drive should accurately reflect economic market conditions and incompatible activities should be eliminated.

Implementation: Conduct an annual review of activity on Huntington Drive to determine applicability of General Plan land use designations.

Implementation: Adopt and continue to implement the General Plan land use map.

Implementation: Utilize the Redevelopment Agency's authority to acquire incompatible activities.

- 2.2 Provide for the shopping and service needs of residents by conveniently clustering commercial establishments in such a way to encourage "one-stop" shopping.

Implementation: Commercial development along Huntington Drive should be concentrated in nodes at key intersections. The development of commercial shopping centers should be encouraged in these nodes.

Implementation: The land use plan, which provides for a commercial core for the city at the intersection of Buena Vista Street and Huntington Drive, should be implemented.

- 2.3 Encourage commercial development adjacent to interchanges which will take advantage of the visibility and access provided by the freeway and promote the development of freeway oriented commercial uses in the corridor north of I-210.

Implementation: Conduct market studies to determine the appropriate uses along the freeway corridor.

Implementation: Major hotel development should be encouraged in certain areas adjacent the freeway corridor to take advantage of visibility, access, and anticipated development in neighboring cities.

- 2.4 Appropriate neighborhood commercial uses should be encouraged to serve the needs of individual neighborhoods. The city's design review procedures shall be utilized to insure that these smaller commercial shopping areas are attractive and compatible with surrounding uses.

Implementation: Continue to support the Architectural Review Board and its review of all commercial projects in the city.

Implementation: Utilize the community design manual to insure neighborhood commercial uses are compatible with existing neighborhoods.

ISSUE: INDUSTRIAL DEVELOPMENT

The following goal and policies emphasize the need to attract new industrial uses to the city. These policies indicate the desirable kind of development, as well as making sure these activities are compatible with surrounding uses.

Goal 3:

To promote new industrial development in the city and encourage the revitalization of older industrial activities in the city.

Policies:

- 3.1 Promote industrial development at appropriate locations within the corridor south of I-210. Industrial development in these areas should not be in conflict with planned freeway commercial and hotel uses however.

Implementation: Adopt and continue to implement the General Plan land use map.

- 3.2 Provide and encourage industrial development involved in research and development-oriented uses.

Implementation: Revise the zoning ordinance to encourage research and development projects.

- 3.3 Make every effort to ensure that industry and residences, where located in close proximity, will be compatible neighbors with nonindustrial uses located nearby, and with neighboring cities as well.

Implementation: Designate these uses as nonconforming land uses and initiate abatement procedures which will allow for their removal.

- 3.4 Older industrial development which negatively impacts residential uses should be discontinued in favor of more appropriate uses that are sensitive to existing residential neighborhoods.

Implementation: Implement the General Plan land use policy.

- 3.5 Appropriate mitigation measures should be implemented to ensure that the adverse impacts from truck and employee traffic can be reduced.

Implementation: As part of the environmental review process, project-generated traffic must be reduced through appropriate mitigation measures.

- 3.6 Promote industrial development in a business or industrial park setting.

Implementation: The Architectural Review Board will review and provide direction in the design of new industrial parks.

- 3.7 Promote industrial development which will enable the city to achieve job housing balance.

Implementation: As part of the environmental review process, the impact of new development on the city's jobs/housing balance shall be evaluated.

ISSUE: BALANCED DEVELOPMENT

The City of Duarte is predominantly a residential community. The following goal and policies stress the importance of providing a balance in residential, commercial, and industrial development. This balance includes range of housing types and commercial and industrial development.

Goal 4:

Develop a balanced community consisting of residential development at a range of housing types and densities, commercial activities, industrial development, and open space.

Policies:

- 4.1 Where appropriate, review market studies to determine the mix and type of commercial development necessary to satisfy a need for the Duarte trade area.

Implementation: The Redevelopment Agency and City Planning Department will review market studies of proposed development and make appropriate recommendations to the City Council.

- 4.2 Where appropriate, ensure that residents displaced by new nonresidential development are adequately compensated as provided by state law.

Implementation: The Redevelopment Agency will comply with all state and federal laws regarding fair and just compensation.

- 4.3 Encourage the development of a mix of housing types and densities to ensure a variety of housing to accommodate a range of tastes and incomes.

Implementation: Zone sufficient land for a balanced mix of residential uses.

ISSUE: RETAIL/COMMERCIAL DEVELOPMENT AND REVIVAL

The following goal and policies relate to the city's commitment of continued growth in commercial/retail development, as well as the revitalization efforts of the Redevelopment Agency.

Goal 5:

Continue to support existing commercial development in the city and provide for new commercial development where appropriate.

Policies:

- 5.1 Continue to support the Redevelopment Agency's efforts at upgrading and revitalizing key commercial areas of the city.

Implementation: Continue to support the efforts of the City of Duarte Redevelopment Agency.

- 5.2 Expand regional economic development along the I-210 corridor beyond the auto row concept. In order to maximize revenue and enhance image, the Redevelopment Agency/city should investigate other major draws typical of an international trade center magnitude, hotel/convention complex, etc.

Implementation: Continue to implement ongoing redevelopment agency's current programs.

- 5.3 Participate in the promotion of the San Gabriel Valley to encourage broader regional recognition.

Implementation: The city will participate in programs designed to promote the San Gabriel Valley as a place to work, live, and locate businesses.

- 5.4 Encourage the redevelopment agency and city to capitalize on developments occurring in adjacent cities.

Implementation: The city will monitor development proposals in adjacent communities, such as the proposed athletic stadium in Irwindale.

2.3 LAND USE PLAN

2.3.1 DESCRIPTION OF LAND USE STANDARDS

The General Plan land use designations contain standards for population density and development intensity. In addition, these designations correspond to one or more zone districts which further define development standards land use designations. In this way, consistency between the zoning ordinance and General Plan land use policy can be assured.

The proposed land use policy provides for land use designations which include four residential land use categories, two commercial categories, two open space land use categories, and one category each for administrative/professional, hospital, public, schools, and industrial. In addition, the land use plan provides for a specialty overlay designation. Each category is described as follows:

Very Low Density Residential

This land use designation corresponds to single-family detached homes on lots of between one-half and one-quarter acre in area. Building intensity standards for this category range from 0 to 4 units per acre and the population density standards for this category range from 0 to 12 persons per acre assuming an average household size of 3.04 persons per unit. Corresponding zone districts for this land use category include R-1B and R-1D. Virtually all of the land designated as very low density residential is located in the northernmost developed portion of the city.

Low Density Residential

This land use category is also characterized by single-family detached housing units and accounts for the largest portion of the city's land area. This category permits development to occur at densities ranging from 5 to 8 units per acre. The population density anticipated to result from this type of development will result in between 15 to 24 persons per acre assuming an average household size of 3.04 persons per unit. The R-1 and R-1A zone districts correspond to this land use designation.

Medium Density Residential

This category of land use is characterized by both single-family detached and attached development at densities ranging from 9 to 21 units. The population density standard for this land use designation ranges from between 27 to 63 persons per acre, again assuming an average household size of 3.04 persons per unit. Corresponding zone districts include the R-2 (Multiple Residential zone) and the R-MH (residential mobilehome).

High Density Residential

This land use designation provides for the development of condominiums, apartments, and housing for senior citizens. The development density for this land use category can range from 22 up to 28 units per acre, provided parking, open space, and other zoning standards can be met. The resulting population density standard for this land use category ranges from 69 to 85 persons per acre. The development standard for senior housing is slightly higher with up to 35 units per acre permitted. The R-3 and R-4 zones district corresponds to this land use designation.

Administrative/Professional

This category provides for office professional development and corresponds to the C-P (administrative/professional) zone district. The development standard for this category is defined by the floor area ratio (FAR) which is simply the ratio of the gross floor area of the improvements to the land area. The FAR for this land use category is 0.5 to 1.0. Portions of Huntington Drive and Buena Vista Avenue have been designated as administrative/professional in the proposed land use plan.

Hospital

This land use applies to those parcels occupied by Santa Teresita and the City of Hope medical facilities and corresponds to the H (Hospital) zone district. The FAR standard for this land use category is 1.5 to 1.0.

Public/Quasi Public

The civic center, library, post office, fire station; and other civic, administrative, utilities, and governmental activities are designated as public/quasi-public uses. The FAR standard for this category is 0.5 to 1.0 and the corresponding zone district is PF (public facilities).

Schools

Public schools in the city have been assigned a "school" designation. Any reuse of a school site will require a General Plan amendment.

Neighborhood Commercial

Uses in the category are characterized by smaller convenience, service, and neighborhood commercial retail and service activities. The FAR standard for this category ranges between 0.25 to 1.0 and 0.5 to 1.0 as long as parking standards established by the zoning ordinance can be met. Corresponding zone districts for this land use category include C-1 (neighborhood commercial) and C-2 (retail commercial).

General Commercial

The general commercial category provides for the development of larger commercial retail centers in areas of the city that have a high visibility, are located near high traffic areas, and have good access. A variety of commercial activities are permitted, including retail stores that serve either a citywide or regional market, specialty shops, hotels, and automobile dealerships. A number of large parcels on Huntington Drive in the vicinity of Buena Vista Avenue have been designated as general commercial. The applicable FAR standard is 0.35 to 1.0 in recognition of the high demand for parking these activities generally require. The corresponding zone districts indicate C-3 (community commercial) and C-4 (service commercial).

Industrial

The land use policy provides for a single industrial land use classification. This category promotes the development of a wide range of manufacturing and industrial activities. The standards contained in this General Plan and zoning ordinance encourage the development of attractive, well designed business parks which may include office and retailing functions in addition to manufacturing and assembly operations. The FAR standard for this category ranges from 0.5 to 1.0 depending on the type of activity and the parking requirements. The corresponding zone districts for this category indicate I-P (industrial park) and M-1 (light manufacturing).

Open Space

This land use category ensures that open space is preserved for recreation and resource protection. This designation applies to all of the city parks, the Rancho Duarte Golf Course, a utilities easement north of Royal Oaks Drive, and all of the city land area within the boundaries of the Angeles National Forest.

Planned Development/Specific Plan Overlay

This overlay designation applies to three areas of the city. First, the undeveloped hillside areas in the northern portion of the city not under public domain are placed within this overlay. In addition, land presently occupied by Westminster Gardens has also been designated as a planned unit development. This overlay General Plan designation in the later instance permits the existing use to remain as long as it is desirable for the property owner to do so. Because of the property's visibility, size, and location, a specific plan will be prepared to determine the highest and best use of the site if and when redevelopment occurs. Finally, the property adjacent to Buena Vista Street south of the freeway has been designated as a future specific plan study area.

The planned development overlay designation will also encourage the development of projects that are sensitive to the open space and visual resources in the hillside areas. The city will permit certain types of development (zero-lot line, clustered housing, etc.), that will maximize the available open space.

The land use categories are summarized in Table 2-1 which indicates the corresponding zone district and development standards concerning population density and development intensity.

TABLE 2-1
LAND USE DESIGNATIONS

<u>Proposed General Plan Designation</u>	<u>Zone District</u>	<u>Development Standard</u>
Very Low Density	R-1-B, Single-Family R-1-D, Single-Family	0-4 du/acre 0-12 persons/acre
Low Density	R-1, Single-Family R-1-A, Single-Family	5-8 du/acre 15-24 persons/acre
Medium Density	R-2, Multiple Residential R-MH, Mobilehome	9-21 du/acre 27-63 persons/acre
High Density	R-3, Multiple Residential R-4, Multiple Residential	22-28 du/acre 69-85 persons/acre
Administrative/Professional	C-P, Administrative/Professional	0.5:1.0 FAR
Hospital	H, Hospital	1.5:1.0 FAR
Public/Quasi-Public	PF, Public Facilities	0.5:1.0 FAR
Schools	PF, Public Facilities	-----
Neighborhood Commercial	C-1, Neighborhood Commercial C-2, Retail Commercial	0.25:1.0 to 0.5:1.0 FAR
General Commercial	C-3, Community Commercial C-4, Service Commercial	0.35:1.0 FAR
Industrial	I-P, Industrial Park M-1, Light Manufacturing	0.5:1.0 to 1.0:1.0 FAR
Open Space	Open Space	
Planned Development/ Specific Plan Overlay	----	----

Source: City of Duarte, 1989.

2.3.2 LAND USE POLICY MAP

The land use policy map indicates the distribution of land use designations geographically throughout the city. Exhibit 2-1 illustrates the location and extent of these land use designations. To a large extent, the land use policy map largely reflects the existing character of development in the city. As a result, the overall distribution of land uses in the city will not change with the exception of a few areas. Residential development will remain the dominant land use in the city aside from the large areas of open space in the northernmost portions of the city. Commercial activity will continue along Huntington Drive and Buena Vista Street. Industrial uses will include light industrial, warehousing, and professional offices scattered at different areas in the city.

Table 2-2 indicates the distribution of land use in the city categorized according to the land use designations.

TABLE 2-2

GENERAL PLAN LAND USE DISTRIBUTION

<u>Land Use</u>	<u>Area in Acres</u>	<u>Percent</u>
Very Low Density	172	4.1
Low Density	749	17.4
Medium Density	110	2.6
High Density	50	1.2
Neighborhood Commercial	9	0.02
General Commercial	108	2.7
Administrative Professional	9	0.02
Industrial	105	2.7
Hospital	86	2.0
Schools	76	1.8
Planned Development/Specific Planned Overlay	42	0.06
Open Space (Parks and Wilderness)	2,317	53.5
Public/Quasi-Public	31	0.08
Roads	478	11.2
Railroad	10	0.03
Total	4,352	100.00

Source: City of Duarte.

2.3.3 DEVELOPMENT CONSTRAINTS

The ability of certain areas to successfully sustain certain types of development is an important consideration in the land use designation. Related to the capability of the land to support certain development is the physical suitability for one use over another.

Terrain

Duarte is divided into three topographic areas that determine the pattern of development. These sections include the San Gabriel Mountain range of the Angeles National Forest, the foothills and canyons of the San Gabriel Mountains, and the alluvial slopes of the mountains.

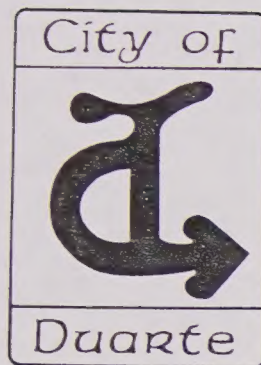
Past urban development has been limited to the alluvial slope area of the city. The northernmost section of the city is high mountainous country of the Angeles National Forest which restricts any kind of urban development. The foothills consist of steep wall canyons with few developable flat areas. As a result, the majority of the city, 2,251 acres, north of the alluvial slopes has been designated open space as the more suitable use for the area.

Chemical Hazard

Hazardous materials are associated with the transport production and storage of chemicals and potentially toxic or explosive products. In the City of Duarte, industrial areas are not concentrated in one area and, thus, do not present a serious problem to areas surrounding the sites in the event of an accident. In addition to hazardous materials, there are soils that contain hazardous gases and substances that may pose a serious problem. These issues are discussed in the Safety Element Background Report.

Land Availability

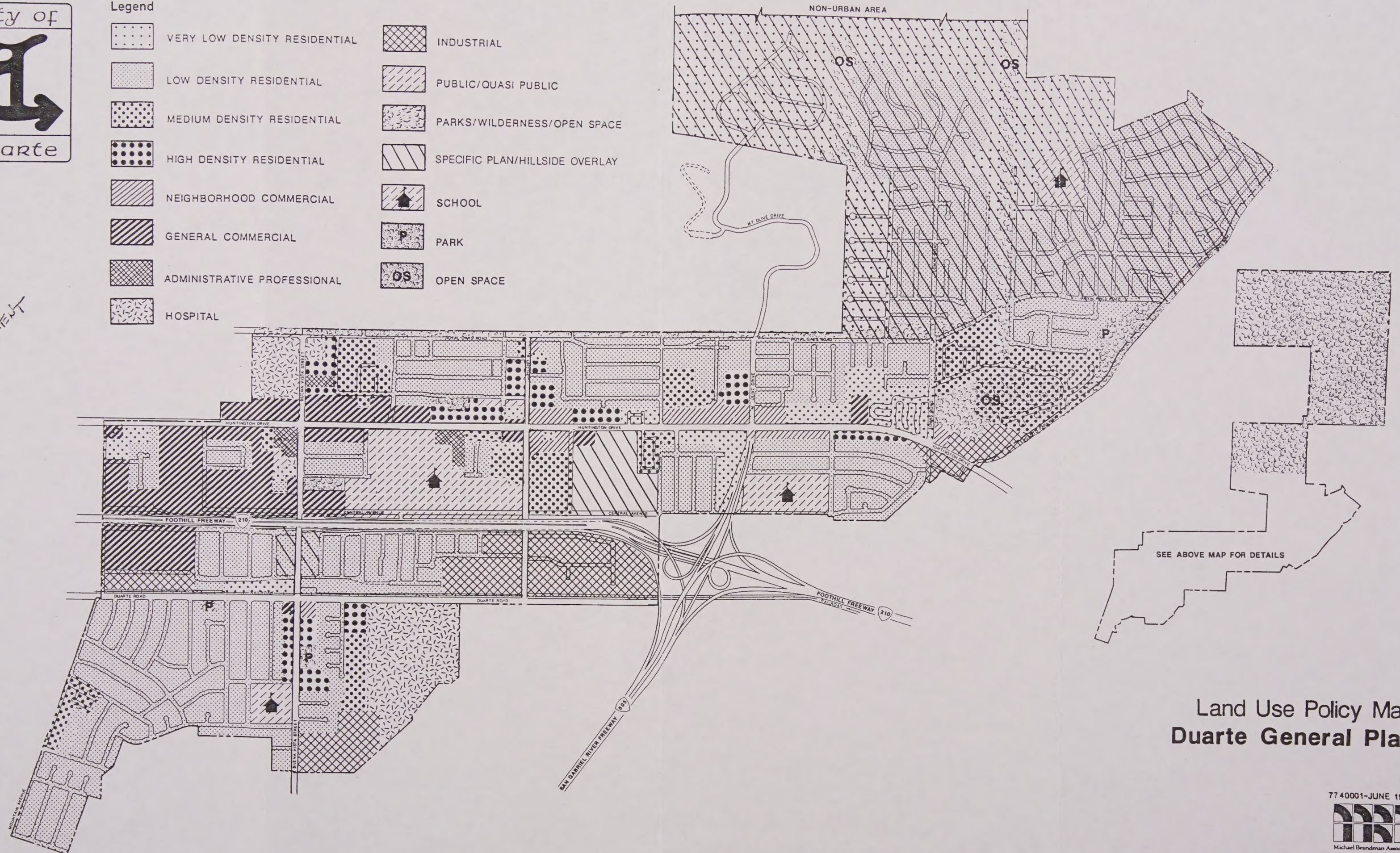
Very little vacant land is remaining in the city. The greatest concentration of vacant land is in the northernmost portion of the city and hillside areas. However, much of this vacant land is located in redevelopment plan project areas. As a result



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| | LOW DENSITY RESIDENTIAL | | PUBLIC/QUASI PUBLIC |
| | MEDIUM DENSITY RESIDENTIAL | | PARKS/WILDERNESS/OPEN SPACE |
| | HIGH DENSITY RESIDENTIAL | | SPECIFIC PLAN/HILLSIDE OVERLAY |
| | NEIGHBORHOOD COMMERCIAL | | SCHOOL |
| | GENERAL COMMERCIAL | | PARK |
| | ADMINISTRATIVE PROFESSIONAL | | OPEN SPACE |
| | HOSPITAL | | |



Land Use Policy Map Duarte General Plan

7740001-JUNE 1989



Michael Brandman Associates

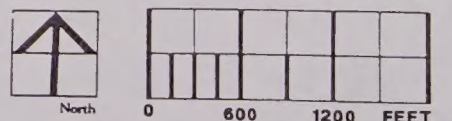
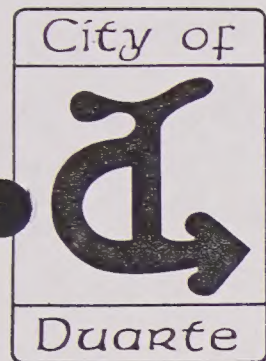
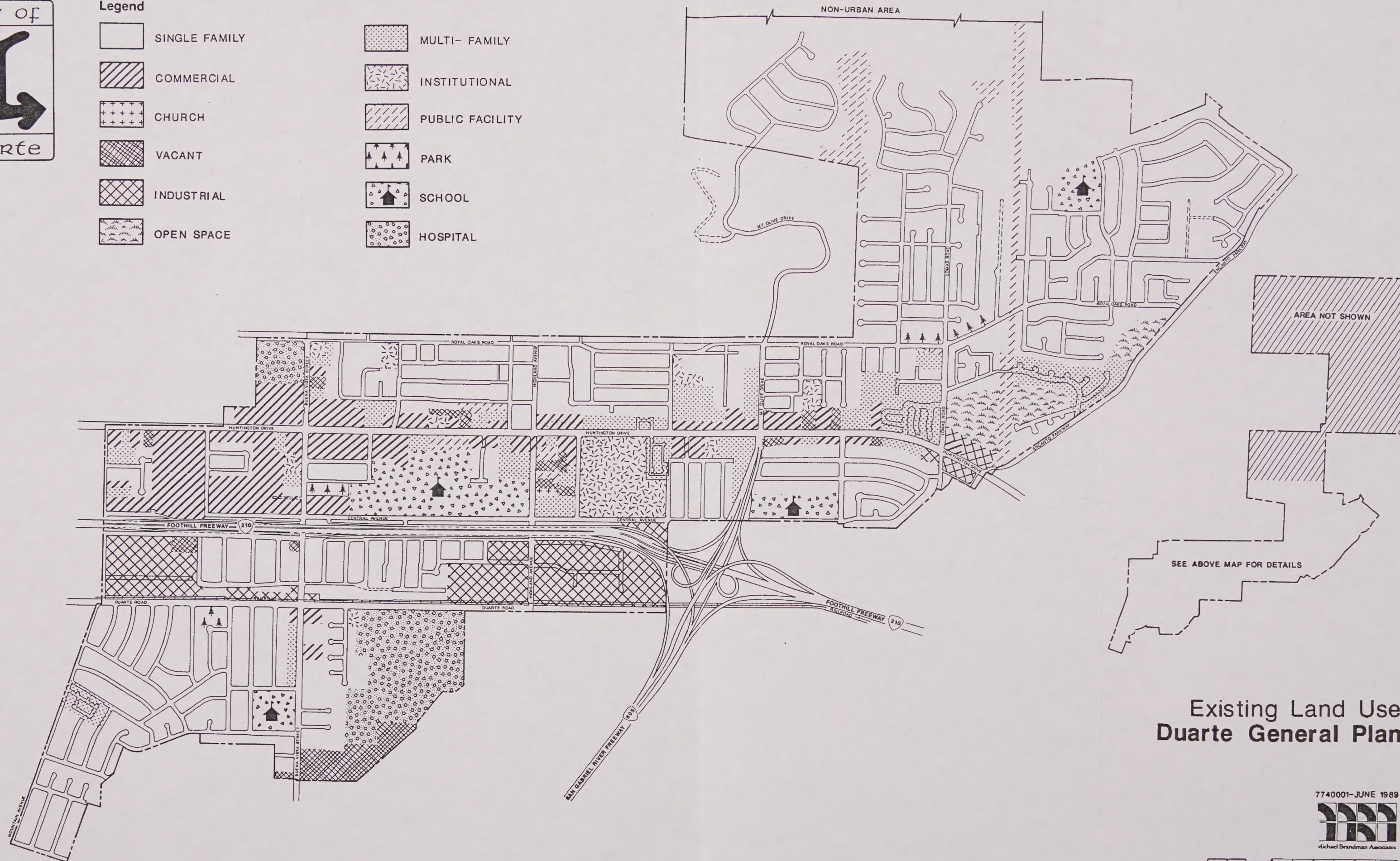


Exhibit 2-1



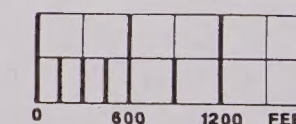
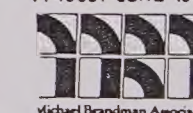
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	CHURCH		PUBLIC FACILITY
	VACANT		PARK
	INDUSTRIAL		SCHOOL
	OPEN SPACE		HOSPITAL



Existing Land Use
Duarte General Plan

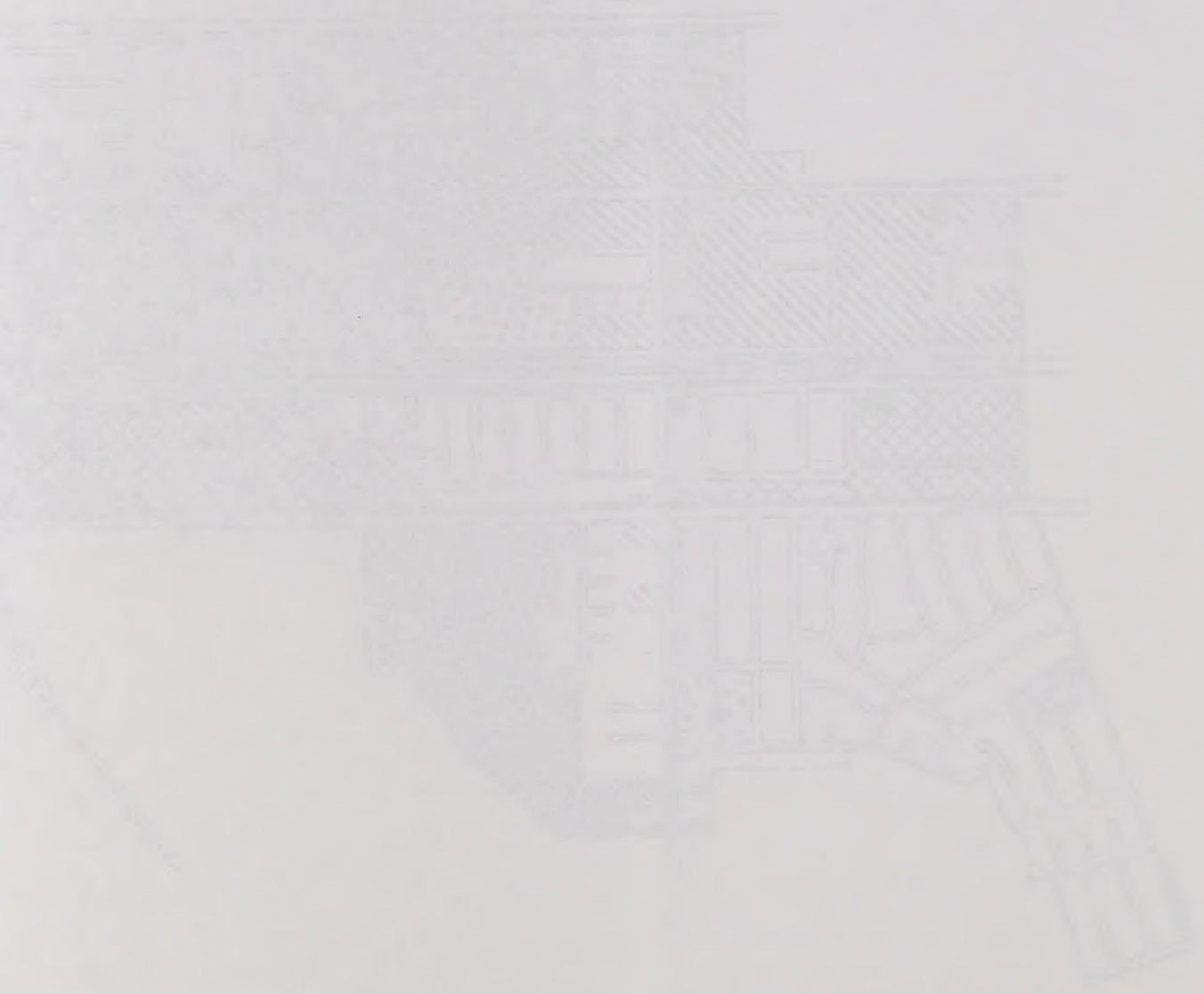
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it can be expected that new development could occur in those areas not already redeveloped.

Seismic Hazard

The City of Duarte is located in a seismically active area. Section 6.3 of the Safety Element Background Report describes in detail the history and character of these active faults.

The San Andreas Fault located 50 miles northeast of the city is one of the active faults in the area. This fault has the potential for an earthquake of magnitude greater than 8 on the Richter scale. The primary effects of an earthquake include ground shaking, liquefaction, and tsunamis which are described in detail in the Safety Element Background Report.

Fire Hazard

The City of Duarte is susceptible to a range of fires from wildland to urban. The mountain slope areas lend themselves to natural fires due to bushy and woody materials in the area. Urban fires may ignite by sources within structures or may be chemically related. The Safety Element Background Report discusses fire hazard in more detail.

Flood Hazard

The easternmost portion of the city is located west of the San Gabriel River, which drains the San Gabriel Mountains to the north. The Public Safety Element Background Report documents the existing flood hazard in the city and indicates areas of the city that would be subject to inundation in the event of dam failure from the Saw Pit or San Gabriel dams.

LAND USE BACKGROUND REPORT

2.4 INTRODUCTION

This background report provides background information regarding the location and distribution of existing land uses in the city. The report includes a description of land uses and land use trends, describes plans for future development, and identifies potential development constraints that may effect future development in the City of Duarte.

2.5 CHARACTERISTICS OF EXISTING LAND USE

The distribution of existing land uses in the City of Duarte were determined by field surveys and inspection of aerial photographs and maps. Land uses were placed in nine categories: residential, commercial, industrial, hospital or sanitarium, public and semi-public facilities, parks and recreation, schools, streets and highways, and railroad.

The City of Duarte encompasses approximately 4,352 acres, or 6.8 square miles. Approximately 25.0 percent (1,077 acres) of the total land area of the city is devoted to residential uses. Industrial activities account for 1.8 percent (79.5 acres) and commercial uses account for 2.9 percent, or 122.5 acres. The distribution of existing land uses is shown in Table 2-3. Existing land uses are depicted in Exhibit 2-2.

Residential: Residential development accounts for 25.0 percent of the city's land use area. There are four general categories of residential development in the city which has been established by past zoning. These categories include low density (0 to 4 dwelling units per acre), low to medium density (4 to 8 dwelling units per acre), medium density (8 to 20 dwelling units per acre), and high density (20 to 35 dwelling units per acre). For the most part, multiple-family development in Duarte (both apartments and condominiums) has been developed at densities less than 25 units per acre.

TABLE 2-3

DISTRIBUTION OF EXISTING LAND USES

<u>Land Use</u>	<u>Area in Acres</u>	<u>Percent</u>
Low Density (single-family)	925.0	21.0
Medium Density	114.1	2.6
High Density	38.7	0.9
Commercial	122.5	2.9
Industrial	79.5	1.8
Hospital	97.3	2.2
Public-Semi Public	71.5	1.6
Schools	74.0	1.7
Parks and Open Space	58.7	1.3
Vacant/Undeveloped	31.7	0.8
Railroads	10.0	0.2
Streets and Highways	478.0	11.0
Wilderness	<u>2,251.0</u>	<u>52.0</u>
Total	4,352.0	100.0

Source: City of Duarte Community Development Department, 1989.

Most residential development in the city is characterized by single-family homes located on larger lots consisting of over 5,000 square feet of land area. Low density development is generally single-family units clustered to provide efficient use of land for open space and streets. Residential development at medium densities include duplex, triplex, and fourplex units, as well as garden apartments, townhomes and condominium developments. Mobilehome parks are also included in this category. The high density category consists of multiple-family apartment units, condominiums, and senior housing.

Commercial: Commercial land uses account for approximately 2.9 percent of the city's total land area. Commercial activities are concentrated along Huntington Drive, Buena Vista Street, Highland Avenue, and Central Avenue. Larger commercial centers are located along Huntington Drive west of Buena Vista, while

smaller neighborhood-serving commercial uses are located along the center portion of Huntington Drive in the vicinity of Mt. Olive Drive.

Industrial: Industrial activities account for approximately 1.8 percent of the city's total land area. Industrial land uses are concentrated south of I-210 and along the most easterly portion of Huntington Drive. In addition, a new industrial park is being proposed in the southernmost portion of the city adjacent to the City of Hope.

Hospital or Sanitarium: Hospital or sanitarium uses account for 2.2 percent of the city's total land area. The city is referred to as "the City of Health" which reflects the important contribution these facilities have made to Duarte's development. This land use includes the City of Hope National Medical Center, Santa Teresita Hospital, Westminster Gardens, and convalescent hospitals.

Public and Semi-Public Facilities: Public and semi-public facilities include the city administrative offices, fire station, post office, library, and public utilities. These uses account for 1 percent of the total land use area and they are indicated in Exhibit 2-2.

Parks and Recreation: The city either owns or operates numerous recreation facilities throughout the city. In addition, there is an extensive network of riding and hiking trails in the hills north of Duarte and along the abandoned right-of-way of the Pacific Electric Railroad paralleling the northern boundary of the city. At this time, existing improved parks account for 58.7 acres of land. In addition one park totaling 11.5 acres is proposed.

Schools: The schools are administered by the Duarte Unified School District which consist of four elementary schools, one middle school, and one high school. A total of 74.0 acres are occupied by schools and their support facilities.

Streets and Highways: City streets and highways account for 11 percent of the city's land area comprising 478 acres. This category is the second largest category of land use after residential development. The circulation element background report describes existing roadways in the city.

Railroad: The AT&SF railroad roughly constitutes 10 acres of land located north of Duarte Road running east to west from the City of Irwindale to the City of Monrovia.

Wilderness: The wilderness area north of the existing urban development constitutes the largest land use in the city totaling 2,251 acres (52 percent) of land. The northernmost portion of this area lies within the Angeles National Forest which covers 1,913 acres of land. The remaining area is rugged mountainous topography unsuitable for urban development.

2.6 LAND USE TRENDS

The City of Duarte was incorporated in 1957. The community, like others in the east San Gabriel Valley, grew as a result of the development that was associated with two major transportation systems: the Pacific Electric Railroad and State Route 66. Since the early 1900s, Duarte has developed into a thriving residential community providing housing for the growing population.

Until 1970, single-family, lower density residential development accounted for the overwhelming majority of housing unit types in Duarte. Census statistics indicate that from 1970 to 1980 there was an increase in multiple-family units (apartments, condominiums, and attached units) accompanied by a decline in the proportion of single-family units compared to the total housing inventory. This increase in multiple-family development was an outgrowth of redevelopment practices which promoted this type of development.

According to U.S. Census statistics, the number of multiple-family housing units increased during the 1970s and this trend continued through the 1980s. In 1970, 657, or 14.4 percent, of the total 4,545 residential units were multiple-family. By 1980, this proportion had increased to 22.5 percent. Recent statistics from the State Department of Finance indicate that in 1989, 28 percent of the 6,959 residential units in Duarte were multiple-family. Even though there was an overall decline in the proportion of single-family units from 1970 to 1988, the number of single-family units did increase from 1970 to 1989 and this unit type is still the dominant housing unit type in the city. Table 2-4 compares housing statistics derived from the 1970 and 1980 census with current estimates provided by the State Department of Finance.

TABLE 2-4

TRENDS IN UNIT TYPES: 1970-1989

<u>Type</u>	<u>1970</u>		<u>1980</u>		<u>1989</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Single-Family	3,646	80.2	4,243	74.0	4,744	68.2
Duplex-Four Units	58	1.2	200	3.5	387	5.6
Five or More Units	599	13.2	1,087	19.0	1,582	22.8
Mobilehomes	<u>242</u>	<u>5.4</u>	<u>201</u>	<u>3.5</u>	<u>246</u>	<u>3.4</u>
Citywide	4,545	100.0	5,731	100.0	6,959	100.0

Source: Department of Finance, 1989.
U.S. Census, 1970, 1980.

Commercial development traditionally has occurred along Huntington Drive which is the major roadway that serves the city. Huntington Drive was part of Route 66 which was a major highway before the regional system of freeways were structured. Since the adoption of the redevelopment plans, substantial new commercial development has occurred along Huntington Drive. Significant commercial development along Huntington Drive includes a 19-acre retail shopping center built on the previous Big Sky Drive-In Theater site and a commercial and hotel complex on the south side of Huntington Drive west of Buena Vista Street.

The Duarte Redevelopment Agency is encouraging new commercial development in other areas of the city such as Buena Vista Street. Buena Vista Street was identified in the 1972 General Plan as a key commercial center because of its visibility and accessibility from I-210. The major uses planned for the Buena Vista Street and the I-210 interchange included new motels; restaurants; new car dealerships; and retailers of motorhomes, campers, and other recreational vehicles. However, development on Buena Vista south of I-210 has not occurred because the area is predominantly single-family and any type of development would require the consolidation of single-family lots.

New industrial development has occurred in the city through redevelopment. Since 1972, the City of Duarte has constructed new industrial development encompassing approximately 40 acres. The Davis Addition, completed in 1985, is an example of some of the industrial construction in the city. An industrial park in the Davis Addition has successfully transformed a once blighted area into a modern business park. New industrial development is also planned on 23 acres of land belonging to the City of Hope. It is believed that this area has great industrial development potential due to its size, location, and accessibility from the I-210 and I-605 freeways.

2.7 EXISTING LAND USE PLANS

Since incorporation in 1957, two General Plans have been adopted outlining future growth and development in the city. A number of other land use planning studies and reports have also been completed supplementing the general plans. The first General Plan was adopted in 1962. This plan established for the city long-term goals and policies relating to development. In 1972, the second General Plan for the city was prepared and adopted. This plan differed from the 1962 plan in that it focused upon the impact the newly constructed I-210 and I-605 would have on the city. Four specific areas were identified as places for potential economic development. These areas included Huntington Drive, Buena Vista Street, the Davis Addition, and the landfill site.

Huntington Drive historically was part of SR-66. A dramatic change in land use pattern occurred along the boulevard after Interstate 210 opened in 1968. Traffic volume decreased substantially which directly affected businesses along the street. Studies prepared at the time indicated that Duarte had an excessive amount of commercial land. The General Plan recommended that the commercial land use be reduced and redistributed and that the street should accommodate a mix of development, including residential. As a result, land uses changed from predominant highwall commercial to a mix of commercial and higher density residential development. To insure compatibility between the land uses, the Huntington Drive Specific Plan was prepared and adopted by the city in 1981.

Buena Vista Street became an important arterial roadway following the completion of I-210, since it provides for north/south movement in the city, as well as access to and from the freeway. Studies conducted in the 1960s and early 1970s indicated that the commercial office and residential development would be attracted to the street due to its accessibility and visibility from the freeway. These earlier general plans advocated the redevelopment of this corridor in both commercial and office professional uses.

The Davis Addition is located at the southwest side of the I-210 and I-605 interchange and was viewed as the area with the most potential for industrial development. One of the attractions of the area was the accessibility not only by the two freeways, but also by rail. This area now contains the largest single concentration of industrial development in the city.

The landfill site is located on Las Lomas, north of Huntington Drive. The site was developed with a nine hole executive golf course, restaurant, and single family homes. This area provides an excellent recreation facility and serves as an example of how redevelopment was used to turn a blighted area into a highly desirable land use.

2.8 REDEVELOPMENT PLANS

Redevelopment is used by local government as a means to promote the upgrading and revitalization of blighted properties. As a potential source of infrastructure financing, redevelopment may help carry out land use policy. Where the private sector alone is unable or unwilling to assemble land and invest the necessary capital for revitalizing blighted areas, redevelopment is a means of focusing resources to transform a deteriorating area into a more productive part of the community.

In California, the Community Development Law (Health and Safety Code Sections 33000 et seq.) provides cities and counties the authority to carry out redevelopment projects. A City Council or Board of Supervisors must first create a redevelopment agency by ordinance. The ordinance activating the agency then provides for a governing board that is the same or separate from the local legislative body.

Over the past 13 years, the redevelopment agency of the City of Duarte has established eight redevelopment project areas. The location of the redevelopment project areas are indicated in Exhibit 2-3. These plans are as follows:

1. The Davis Addition, adopted February 11, 1975
2. Amended Davis Addition, adopted August 17, 1976
3. Las Lomas, adopted March 21, 1978
4. Huntington Drive, Phase I, adopted June 26, 1979
5. Huntington Drive, Phase II, adopted November 27, 1979
6. Rancho Duarte, Phase I, adopted October 14, 1980
7. Rancho Duarte, Phase II, adopted October 13, 1981
8. Rancho Duarte, Phase III, (adopted) April 1988

The Davis Addition: In 1975, the Redevelopment Agency established the Davis Addition as its first project. The primary focus of this project was to increase the employment base through industrial development. The project area location is shown in Exhibit 2-3. The project was amended in 1976 to include areas for new, but affordable, residential units which included five subareas scattered across the city.

Las Lomas: The redevelopment agency established this project in 1978 to eliminate blighted areas in portions of the city (refer to Exhibit 2-3). Like the amended Davis Addition Plan, the Las Lomas Plan set out to develop new affordable housing in the city. The city hoped that this would stimulate development in other areas of the community by providing new affordable housing.

Huntington Drive: The Huntington Drive redevelopment project area was established in 1979 as a comprehensive redevelopment/revitalization plan for the Huntington Drive Corridor. The plan was divided into two phases which included a number of subareas. Phase I was similar to the amended Davis Addition and Las Lomas Plans in that it provided affordable housing along the corridor. Phase II focused on the conservation and rehabilitation of existing housing and the construction of new affordable housing. The plan also provided for new commercial and industrial development.

Rancho Duarte: This redevelopment project was established in 1980. The Rancho Duarte Plan is similar to the Huntington Drive Plan in that it was designated to address the need for the rehabilitation of existing substandard housing units, as well as providing for new commercial, industrial, and residential development opportunities. This plan consists of three phases with a number of subareas scattered around the city.

Huntington Drive Specific Plan

The Huntington Drive Specific Plan was adopted by the Duarte City Council on April 14, 1981. This plan was established to consolidate the operation plans of the redevelopment agency and the city. The primary objective of the plan was to eliminate and prevent further blight along Huntington Drive and to improve economic viability. In addition to economic improvements, the plan included a scheme for physical and aesthetic enhancement along the corridor.

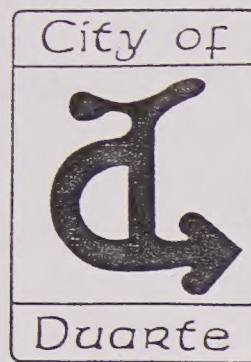
Zoning Ordinance

The City of Duarte Zoning Ordinance is the primary mechanism for implementing past, present, and future General Plan land use policy. For this reason, state planning law requires the zoning ordinance to be consistent with General Plan land use policy. The city's present zoning ordinance consists of 16 zone districts. The zone districts described in Table 2-5 are only those which will be used in implementing the General Plan land use policy.

TABLE 2-5

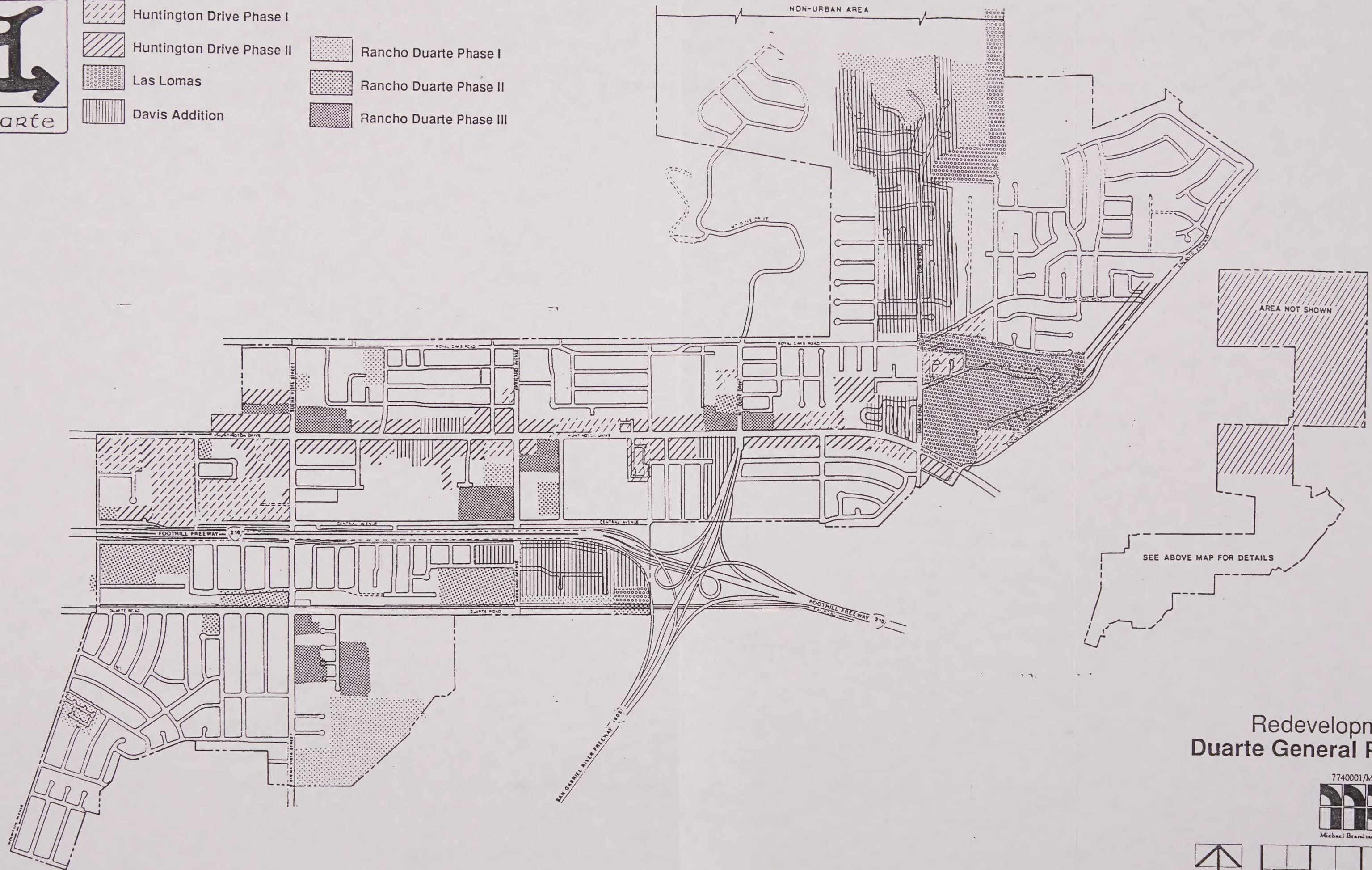
ZONE DISTRICTS

<u>Zone District</u>	<u>Description of Uses</u>
O Open Conservation	Flood control channels; freeways, settling basins; recreation areas; parks; forest preserves; wildlife preserves; agriculture; fisheries; heliports; horticulture; and apiary
P-F Public Facilities	Facilities of all public utilities, city administration buildings, parks, flood control channels



Legend

- | | | | |
|---|---------------------------|---|-------------------------|
|  | Huntington Drive Phase I |  | Rancho Duarte Phase I |
|  | Huntington Drive Phase II |  | Rancho Duarte Phase II |
|  | Las Lomas |  | Rancho Duarte Phase III |
|  | Davis Addition | | |

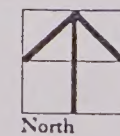


Redevelopment Duarte General Plan

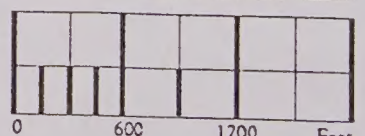
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Michael Brandman Associates



North



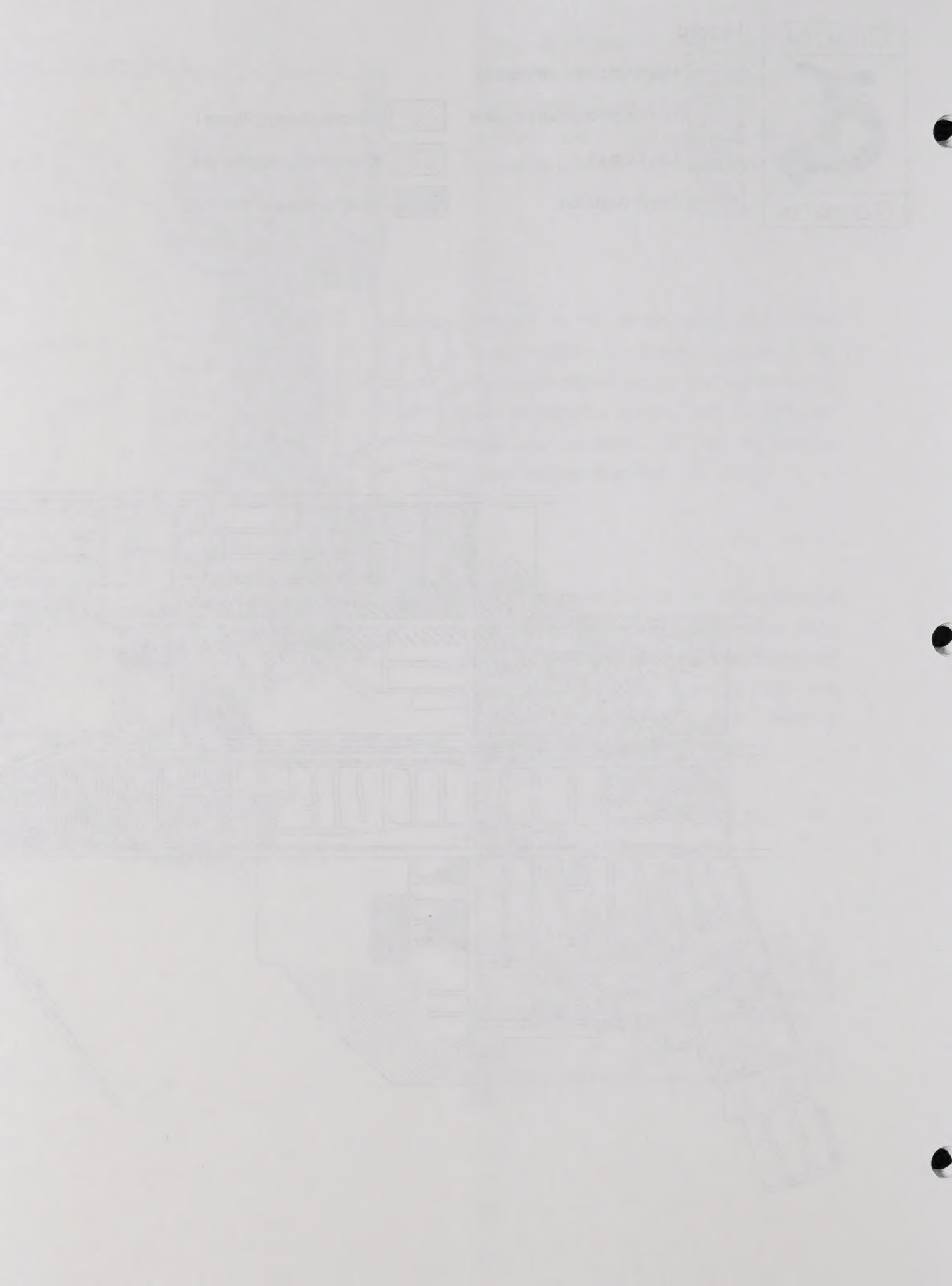


TABLE 2-5 (continued)

<u>Zone District</u>	<u>Description of Uses</u>
R-1 Single-Family Residential	Single-family dwelling, not more than one dwelling unit per lot; horticulture; home occupations; small family day care home; large family day care
R-2 Multiple-family Residential	Single-family dwellings; multiple dwellings-apartment houses, rooming and boarding houses; home occupations; educational institutions; libraries; and horticulture
R-3 Multiple Residential	Apartment hotels; private clubs; new single-family dwellings; conversion of existing single-family dwellings into multiple dwellings; and commercial uses with conditional use permits
R-4 Multiple Residential	Multiple family dwellings, churches, commercial uses subject to CUP.
PUD Planned Unit Development	Residential uses with common open space. The Westminster Gardens land holding is the only site with this designation
R-MH Mobile Home Residential	Mobile homes
R-R Residential Recreation	Clubhouse or cabana; lawn and court games; nursery or child care center; picnic and barbeque; playground; swimming pool; and tennis courts
C-P Administrative Professional	Administrative, financial, and professional offices; art galleries, hotels, and entertainment uses; high density residential uses
C-1 Neighborhood Commercial	Uses permitted in C-P zone; retail stores; and services
C-2 Retail Commercial	Retail stores, department stores, etc.; services-banks, etc.
C-3 Community Commercial	Uses in C-1 and C-2 zones; community or regional shopping center
C-4 Service Commercial	Retail commercial-C-2 zones; retail stores; services; residential condominiums (PUD); and recreational uses

TABLE 2-5 (continued)

<u>Zone District</u>	<u>Description of Uses</u>
I-P Industrial Park	Research and development; electronic products; printing and bookbinding; public utility uses; and administrative and professional offices
M-1 Light Manufacturing	Commercial and manufacturing, including warehousing

Source: City of Duarte Zoning Ordinance

2.9 DEVELOPMENT CONSTRAINTS

There are a number of factors that place constraints on future development and redevelopment within the City of Duarte. These constraints include land availability and environmental constraints, such as topography, flood hazards, and protected open space.

Land Availability--In Duarte, large tracts of available vacant and undeveloped land suitable for development do not exist. Additional growth within the city will largely occur with the conversion or replacement of existing land uses to accommodate new development. Only through replacement or redevelopment is this new development likely to occur.

Development opportunities for residential units can occur on some existing vacant land. Other redevelopment is possible on parcels that presently contain lower density development but are designated to permit higher density development.

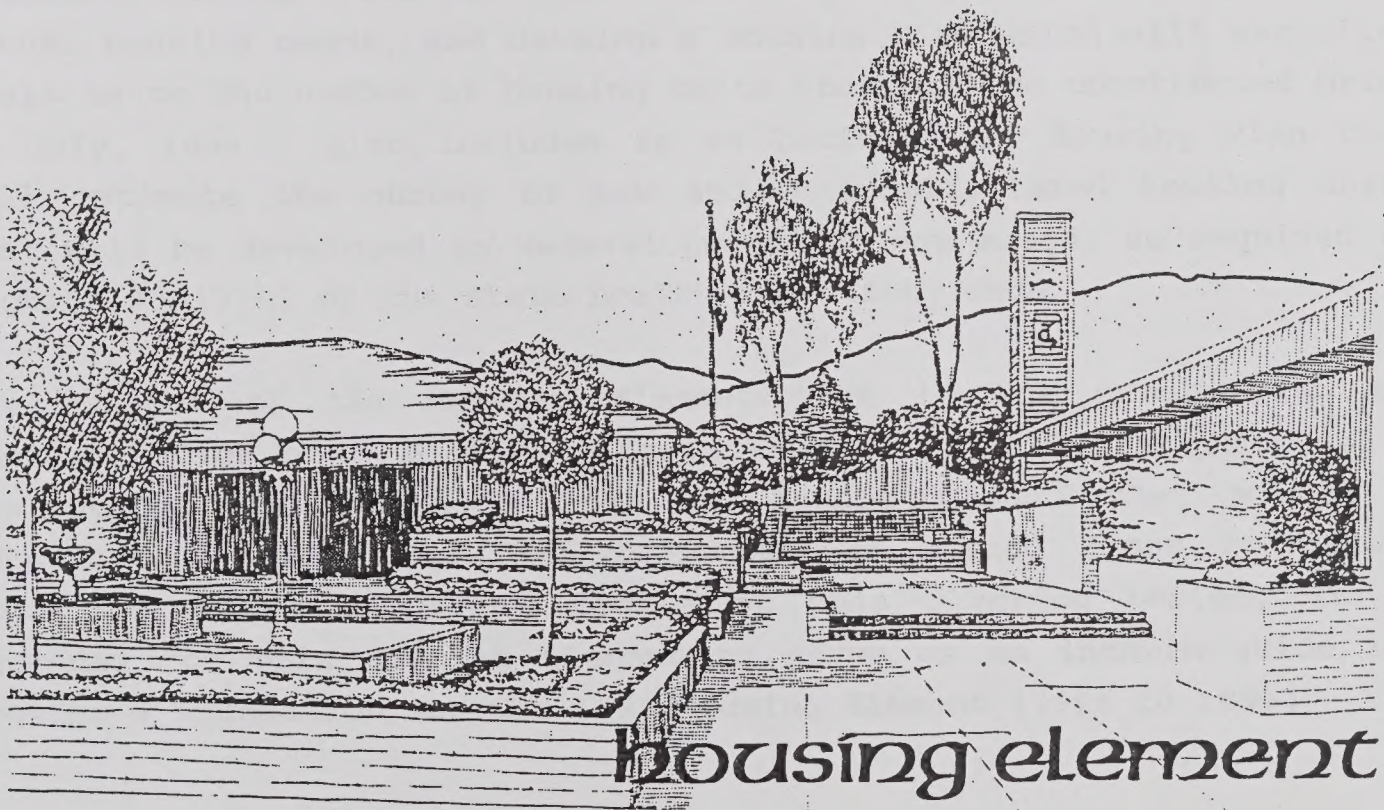
A developed city such as Duarte does not lend itself to major alterations in land use. The land use patterns have largely been established and can only vary through the replacement of one underutilized land use site with another kind of land use. The open space element and accompanying background report documents existing vacant land and open space resources in the city.

Protected Open Space--The Angeles National Forest includes over 1,913 acres of land within the city's jurisdiction. Commercial and residential development is prohibited within the national forest. The land included within the national forest contains steep hillsides where development would be severely restricted if it were permitted to occur.

Topography--The area north of the existing urban development contains rugged topography with few areas suitable for development. Most of the slopes in this area are steeper than 50 percent which generally prohibit any kind of development. There are some hillside areas south of the rugged terrain that have some potential for development. The flatter areas of the city are almost completely urbanized with only 31.7 acres of vacant/undeveloped land available for development.

Flood Hazards--In the event of a dam failure, either from Sawpit Dam or San Gabriel Reservoir, major portions of the city will be affected by flood waters (see Section 6.2.2, Exhibit 15). Previous studies have indicated that areas in the direct path of a flood should be restricted to land uses capable of being inundated with flood water.

Other Constraints--Other development constraints may include seismic features and infrastructure. Previous studies have recommended that development should be prohibited directly atop or outside the Sierra Madre, Duarte, and Lower Duarte faults. The existing city infrastructure (sewers, water facilities, roadways, etc.) may prohibit intensification of existing land uses. Updated sewers, larger water mains, and wider roadways may be required in certain locations in order to permit further development.



housing element



SECTION 3 HOUSING ELEMENT

3.1 INTRODUCTION

The purpose of the Housing Element is to establish goals, policies and programs that will preserve and enhance the residential character of the City of Duarte. The State of California legislature intends for a City's Housing Element to implement statewide goals of decent and affordable housing for all persons. State law makes it clear that affordable housing is the responsibility of local government and they should make a conscious effort to provide housing opportunities for all income groups (Section 65580).

The Housing Element and accompanying Background Report will identify existing housing needs for each economic group, provide an analysis of future housing needs, and develop a Housing Plan which will establish goals as to the number of housing units that will be constructed prior to July, 1994. Also included is an Inclusionary Housing Plan that will estimate the number of new and/or rehabilitated housing units that will be developed in Redevelopment Project Areas, as required by Section 33413(4) of the State Health and Safety Code.

The essence of the Housing Element lies in the development and implementation of a housing program that will establish goals as to the number of housing units, by income group, that might be constructed during the five-year planning period (1989 to 1994). Since the City is in the middle of this planning period, it is intended for this Housing Element to serve as an interim guide and provide a foundation for the 1994 Housing Element (1994 to 1999).

To facilitate the State Department of Housing and Community Development's review of this document, staff has included in the Background Report, and an appendix which identifies where the relevant discussions, as they pertain to State law, may be found.

3.1.1 HOUSING ELEMENT ORGANIZATION

The Housing Element follows the organization prescribed by State law. Section 3.1 serves as the introduction of the Element. Section 3.2 describes the City's previous Housing Element and the City's success in implementing many of its provisions. Section 3.3 outlines the goals, policies, and objectives that the City has chosen to implement its housing program. Section 3.4 discusses governmental and nongovernmental constraints on housing production. Section 3.5 provides an assessment of the City's regional housing needs, an analysis of the City's jobs/housing balance, and a discussion of suitable sites for residential development. Section 3.6 summarizes the expected accomplishments from implementation of the five-year housing program. Included in Section 3.6 is the Redevelopment Housing Plan. Finally, the Background Report contains helpful demographic information based upon the 1990 Census.

3.1.2 RELATIONSHIP TO OTHER ELEMENTS

The Land Use and Transportation Elements of the General Plan will particularly affect the implementation of the Housing Element. The Land Use Element designates land for residential development and establishes permitted densities and intensity of development. The Transportation Element establishes policies for providing essential infrastructure to serve all housing developments.

The policies contained in other elements of the General Plan establish policies that will affect the quality of residential life, the amount and variety of open space, protection of natural, historic and cultural resources, acceptable noise levels in residential areas, and programs to ensure the safety of residents in the event of a natural or man-made disaster. The policies and programs in this Housing Element reflect the policy direction contained in the rest of the General Plan.

3.1.3 PUBLIC PARTICIPATION

The Duarte City Council recognizes the importance of citizen participation in the decision-making process. Examples of this include; conducting ongoing surveys to determine citizen concerns, expanded notification procedures for public hearings, mass mailings to community leaders and organizations, and press releases. The preparation of this Housing Element was facilitated by this type of citizen involvement.

To ensure all economic groups had an opportunity to contribute to the formulation of the goals and policies that are the basis of this Housing Element, the City Council appointed a Task Force comprised of realtors, retirement groups, and housing advocates who took part in the strategic planning process that came to be known as the "Duarte Resurgence Strategic Plan".

Through the use of townhall meetings, workshops, and mass mailings to all residents in the City, a series of recommendations were formulated and forwarded to the City Council. The result was a housing strategy that became part of the Strategic Plan. The recommendations of the Strategic Plan served as the foundation for the Goals and Policy of this Element.

The City's Planning and Economic Development Commissions formed a working committee in 1989, which conducted a series of townhall meetings to review the goals, policies, and programs found in the Housing Element. Their recommendations were forwarded to the City Council where the planning process culminated with the adoption of a Housing Element in September, 1989. Changes in State law and the desire to obtain State approval of its Housing Element necessitated revisions to the 1989 Housing Element. The revised document seeks to satisfy the Housing and Community Development Department's concerns.

3.2 REVIEW OF PREVIOUS HOUSING ELEMENT

California Government Code Section 65588 requires that Housing Elements review the results of the previous Housing Element's goals, objectives, and policies in attainment of the State's housing goals. The results should be quantified as much as possible. The following sections examine the progress the City has had in implementing the provisions of the 1984 Housing Element.

3.2.1 PROGRESS IN IMPLEMENTATION

The 1984 Housing Element, the last State approved Housing Element for the City, identified a number of programs to address the following issues:

1. Preserve the existing housing stock and neighborhoods;
2. Preserve affordable housing in the City;
3. Plan adequate sites for new housing development;
4. Ensure that housing is available to all income groups living in the City; and
5. Ensure that future housing demand is satisfied.

The Housing Element did not, however, establish goals as to how many units would be constructed, conserved, or rehabilitated during the five-year planning period. Included in the Housing Element were a number of policies directed toward the provision of new housing for those households in need, ensuring that new housing opportunities would be maintained, and ensuring that new residential units would be attractive and of sound construction.

Table 3-1 identifies the goals and policies contained in the 1984 Housing Element, and indicates the manner in which the particular policy was implemented.

Table 3-1

City of Duarte
1984 Housing Element
Progress in Implementation

Goal 1. Promote and ensure the provision of adequate housing for all persons regardless of income, age, sex, race, ethnic background, physical status, or family status.

Policy 1 Housing development for special needs groups.

Status: A 112 unit senior housing project was constructed with assistance from the Redevelopment Agency in 1988. In addition, the City Council approved a Specific Plan that will allow the expansion of Westminster Gardens Retirement Community.

Policy 2 Development of housing fund acquisition program.

Status: A low and moderate income housing fund was established beginning in the 1991/92 fiscal year.

Policy 3 Use redevelopment to stimulate new housing development.

Status: Housing Task Force was created to review projects that will utilize low and moderate housing fund.

Table 3-1 (Continued)

Policy 4 Enter into agreements with other agencies to promote new housing.

Status: Utilized on an as needed basis.

Policy 5 Update and revise codes and ordinances to reduce cost of developing new housing.

Status: Second unit and senior housing ordinances were adopted that will allow more housing at reduced costs. The result was the creation of a 112-unit senior citizen apartment.

Policy 6 Eliminate substandard housing units.

Status: Since 1984, the City has utilized CDBG and general fund monies to rehabilitate over 300 dwelling units.

Policy 7 Selective use of the building code shall be applied to substandard units.

Status: Over 100 dwelling units have been brought up to code using the Building Department Occupancy Permit process.

Policy 8 Expand the Home Rebate program to include other target areas.

Status: Program was expanded in 1984 and 1989 to include additional areas eligible for the Home Rebate program.

Policy 9 Eliminate and prevent the deterioration of housing.

Status: An additional Code Enforcement Officer was hired to patrol residential areas.

Goal 2. Promote and ensure the provision of housing selection by location, type, price, and tenure.

Policy 1 Provide for a variety of housing types while conserving existing neighborhoods.

Status: Accomplished through General Plan update in September, 1989.

Table 3-1 (Continued)

Policy 2 Develop incentives to construct other types of units.

Status: The City adopted a second unit ordinance and senior citizen ordinance which resulted in the construction of 120 new dwelling units.

Policy 3 Encourage the elimination of incompatible mixes of land use.

Status: Accomplished through General Plan update which established specific standards for building intensity and population density pursuant to State law.

Policy 4 Encourage residents to improve the exterior appearance of their units.

Status: Through the CDBG and other City programs, over 300 units were rehabilitated during the planning period of the previous Housing Element.

Policy 5 Protect homogeneous single-family neighborhoods from intrusion by incompatible land uses.

Status: Accomplished through General Plan update and through the establishment of the City's Design Review Board.

Policy 6 Develop and apply standards and guidelines to ensure sites for housing are available.

Status: Adoption of General Plan update and subsequent zoning revisions established sites and standards for development.

Policy 7 Ensure all development is consistent with other plans.

Status: Accomplished through adoption of General Plan in 1989.

Policy 8 Protect residential areas from unsafe environmental conditions.

Status: Accomplished through General Plan adoption and ongoing CEQA review.

Table 3-1 (Continued)

Goal 3. Encourage the development of attractive neighborhood property related to basic community services.

Policy 1 Adequate capital improvements and park facilities should be provided.

Status: The City constructed an 11-acre city park and a one acre neighborhood park, the Huntington Drive beautification project was completed (landscaping, resurfacing streets, new street lights), and storm drains on Highland Avenue were completed in 1986.

Policy 2 Incentive program should be established to attract desirable residential development.

Status: Program was never developed. The Redevelopment Agency has been extended the authority to provide incentives that will encourage new residential development.

Goal 4. Ensure all residents of the community have adequate access to housing information.

Policy 1 Staff should provide information related to housing opportunities.

Status: City established a program to provide local realtors copies of revised redevelopment and zoning maps to inform them of changes affecting residential development.

Policy 2 Housing information should be distributed to housing groups regularly.

Status: A quarterly newsletter is distributed to residents and businesses containing information concerning housing programs.

Table 3-1 (Continued)

Goal 5. Ensure an equal opportunity for maximum involvement of persons and organizations in developing housing plan and programs, especially lower income, minority, and elderly residents of the community.

Policy 1 Maintain communication with citizen groups to identify problems in the City.

Status: The City expanded the radius map for posting notices from 300 feet to 600 feet. The Chamber of Commerce and other citizen groups are notified and provided information concerning upcoming public hearings. Press releases are sent out on a regular basis.

Policy 2 Development, evaluation, and refinement of housing programs on a regular basis.

Status: The City is committed to an annual review of the General Plan and an update of the Housing Element every five years.

Goal 6. Act as a guide for municipal services decisions which affect the quality of the housing stock and inventory.

Policy 1 Housing Element should be a basis for decision making.

Status: The City recently updated its General Plan and the Housing Element Policy is reflected in the Land Use Element.

Policy 2 The Housing Element should provide for generalized identification of action areas.

Status: Target areas for housing rehabilitation were expanded.

Policy 3 Refinement of housing programs on a regular basis.

Status: CDBG programs are reviewed on an annual basis. Housing Task Force is in process of reviewing potential programs.

3.2.2 APPROPRIATENESS OF GOALS, OBJECTIVES, AND POLICIES

In preparing this Housing Element, the goals and policies of the 1984 Housing Element were reviewed and analyzed. The majority of the goals and policies included in the 1984 Housing Element have been incorporated into this Housing Element. Table 3-2 identifies these goals and policies and indicates whether or not they were incorporated into the current Housing Element.

Table 3-2

City of Duarte
Previous Housing Element
Goals and Policies

<u>Description of Policy</u>	<u>1984 Policy</u>	<u>1992 Policy</u>
Housing availability	Goal 1	Policy 1.1
Housing for special needs groups	Policy 1	Policies 6.1, 6.2
Acquisition of State and Federal funding	Policy 2	Policies 5.2
Promote redevelopment for new housing	Policy 3	Policies 2.2, 3.1, 4.3, 4.4, 5.2, 6.2
Joint agreements for new development	Policy 4	none
Revision of codes and ordinances	Policy 5 Policy 7	Policy 1.2
Elimination of sub-standard units	Policy 6 Policy 7	Policy 2.1
Expand home rebate programs	Policy 9	Policies 2.2, 2.6
Promote a variety of housing types	Goal 2	Policy 1.1
Preservation of existing neighborhoods	Policy 1	Policies 1.1, 1.2, 1.3, 1.4

Table 3-2 (Continued)

<u>Description of Policy</u>	<u>1984 Policy</u>	<u>1992 Policy</u>
Develop incentives for new housing construction	Policy 2	Policies 3.2, 4.3, 4.4, 6.1
Eliminate incompatible land uses	Policy 3	Policy 1.1
Upgrade appearance of housing units	Policy 4	Policies 2.1, 2.2, 2.3, 2.4, 2.6
Protect single-family neighborhoods	Policy 5	Policies 1.1, 1.2, 1.3, 1.4
Develop appropriate standards	Policy 6	Policy 1.2
Protect residential areas from harmful environmental impacts	Policy 8	Policy 9.1
Development of attractive neighborhoods with adequate services	Goal 3	none
Adequate infrastructure and services	Policy 1	none
Incentives to provide infrastructure	Policy 2	none
Ensure that access to housing is provided	Goal 4	none
City will provide basic housing information	Policy 1	Policies 7.1
Information should be sent to community groups	Policy 2	Policies 7.2, 7.3
Ensure equal opportunity for special needs groups	Goal 5	Policies 7.1, 7.2, 7.3
Public participation in housing programs	Policy 1	Policy 7.2, 7.3
Development and evaluation of programs on an on-going basis	Policy 2	Policy 2.6

3.2.3 EFFECTIVENESS OF 1984 ELEMENT

Table 3-3 indicates the number of units that existed in the City in 1983, projected housing units (existing units plus those that were to be added to the housing stock between 1984 and 1988), and the actual number of units (minus demolitions) that have been added to the City's housing stock as of January 1, 1988.

Table 3-3

City of Duarte
Housing Construction
1983-1988

Census Tract	1983 Units	Projected	Actual
4300.01	1,614 units	1,769 units	1,516 unit
4300.02	1,992 units	2,185 units	2,264 unit
4301.01	1,663 units	1,826 units	1,814 unit
4301.02	1,263 units	1,289 units	1,232 unit
Total	6,532 units	7,069 units	6,826 units

Source: City of Duarte Housing Element, 1984
California Department of Finance, 1988

Review of Table 3-3 indicates that during the five-year planning period, a total of 537 new housing units were projected to be built. The California Department of Finance records show that there were 6,826 units in the City as of January 1, 1988. Based upon this information, the City experienced a net increase of 294 dwelling units from 1983 to 1988. One-hundred twelve of these units were apartments for senior citizens.

The 1984 Housing Element also indicated the City's share in providing housing for low and very low income households. The Regional Housing Allocation Model (RHAM) prepared by the Southern California Association of Governments (SCAG) for that period was referenced in the identification of housing needs for the low income groups. According to the RHAM, Duarte's share for affordable housing was 860 households. Of this figure, 341 households were homeowner and 520 were renters.

3.3 GOALS AND POLICIES

The purpose of this section is to outline the goals and objectives of the City's housing strategy. This section identifies housing issues and sets forth the policies and programs that are necessary to implement these goals and objectives.

ISSUE: REDUCE CONFLICTS BETWEEN LOWER DENSITY AND HIGHER DENSITY HOUSING

The following goals, policies, and programs will ensure that a variety of housing types are provided so the City can meet its share of regional housing. In addition, these goals, policies, and programs will ensure that housing constructed at different densities are compatible with each other.

Goal 1: Provide housing opportunities for all economic segments of the community while protecting the existing housing stock.
--

Policies:

- 1.1 The City will revise the General Plan Land Use Policy Map as necessary to provide for a wide range of housing types and densities.

Program 1: The City will conduct an annual review of the City's land use makeup to ensure a proper mix of housing is available. The review will identify residential and non-residential sites and make appropriate changes as necessary to meet the housing needs of all household income groups.

Objectives: To accommodate existing and projected housing needs including the City's regional housing needs allocation.

Responsible Agency: Planning Commission/City Council

Funding Source: General Fund

Schedule: Annually

1.2 Revise multiple-family development standards to ensure compatibility between abutting single-family residential areas.

Program 2: The City will prepare and adopt new residential development standards for multiple family residential zones. In doing this, the City will allow the development of specific plans on specific parcels, should it be determined that application of the new development standards constrains the development of affordable housing.

Objectives: Allow multiple-family development to occur without impacting adjoining land uses. The specific plan process will allow the removal of land use constraints in case the new standards impact affordable housing.

Responsible Agency: Planning Commission/City Council

Funding Source: General Fund

Schedule: 1. Prepare ordinance, 1991
2. Adopt ordinance, 1992

1.3 High quality design shall be adhered to in the construction of multiple-family housing to ensure compatibility with existing development.

Program 3: Prepare and adopt urban design guidelines that will guide architects and developers in the design of multiple-family projects. The guidelines will be designed to provide guidance and flexibility in choosing materials and design themes so that affordable housing projects are attractive, while still meeting established density levels.

Objectives: Encourage the development of attractive multiple-family developments.

Responsible Agency: Planning Commission/City Council

Funding Source: General Fund

Schedule: 1. Prepare guidelines, 1991
2. Adopt guidelines, 1992

ISSUE: REHABILITATION OF EXISTING HOUSING UNITS
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The City will continue to strengthen existing programs that focus on the upgrading and rehabilitation of housing units in the City. As indicated in the Housing Element Background Report, existing housing in the City provides affordable living opportunities for low and moderate income families. As a result, it is very important to ensure that the City's existing housing stock does not deteriorate.

Goal 2: To upgrade deteriorating and substandard housing units in the City.
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Policies:

2.1 Expand the current home rebate program to provide increased levels of financial assistance throughout areas targeted for assistance.

Program 4: The Home Improvement Grant program will be expanded from \$35,000 a year to \$46,000 per year.

Objectives: To fund an additional ten household rehabilitation projects per calendar year.

Responsible
Agency: Community Development Department

Funding
Source: Community Development Block Grant Funds

Schedule: Annually

Program 5: The Home Improvement Rebates program is a new program that will provide \$56,000 for housing rehabilitation projects.

Objectives: To fund 28 household rehabilitation projects per calendar year.

Responsible
Agency: Community Development Department

Funding
Source: Community Development Block Grant Funds

Schedule: Annually

Program 6: The Home Improvement Loans is a new program that will provide \$60,000 for housing rehabilitation projects.

Objectives: To fund 12 household rehabilitation projects per calendar year.

Responsible
Agency: Community Development Department

Funding
Source: Community Development Block Grant Funds

Schedule: Annually

2.2 Encourage homeowner associations to take an active role in enforcing property development and maintenance standards.

Program 7: Cooperate with existing Homeowner Associations by requiring Homeowner Association approval of building projects prior to obtaining City approval.

Objectives: Ensure that existing households are maintained to their current levels.

Responsible
Agency: Community Development Department

Funding
Source: General Fund

Schedule: Annually

2.3 Encourage the maintenance of safe, sound, and decent housing through the strict enforcement of zoning and building codes.

Program 8: Concentrate code enforcement activities in target areas where housing has deteriorated.

Objectives: Abatement of building and zoning code violations. (200 cases)

Responsible
Agency: Public Safety Department

Funding
Source: General Fund/CDBG Funds

Schedule: Annually

ISSUE: SENIOR HOUSING

The City's senior population is a valuable resource which needs to be protected and enhanced. The following goals, policies and programs will encourage and support existing and future development of senior housing and assistance programs.

Goal 3: To promote the development of housing for senior citizens in the City, and to determine if existing support services should be expanded.

Policies:

3.1 Identify existing developments which provide affordable housing for senior citizens. Develop a program that will allow these units to remain affordable.

Program 9: This program will identify all senior citizen development projects in the City. The identification process will also identify those units that are at risk of losing any rent restrictions. The City will prepare a resources list and make it available to property owners and tenants. The resource list will provide potential assistance programs (i.e. Section 8, etc.).

Objectives: Preservation of existing senior citizen housing units.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule:

1. Identify senior citizen units, 1993
2. Prepare resource list, 1993
3. Disseminate information, 1993

3.2 Promote the City's density bonuses for senior housing and the development of second units on single-family lots in order to provide necessary housing for senior citizens.

Program 10: The City provides information to developers, residents and non-profit agencies informing them of the City's senior citizen density bonus and second unit ordinances. This information is distributed at the public counter and periodically in the community newsletter.

Objectives: Increase the supply of senior citizen housing by spreading information about density bonuses and permitted second units in single family zones.

Responsible Agency: Community Development Department.

Funding Source: General Fund.

Schedule: On-going.

3.3 Promote a well-balanced senior housing market within the City of Duarte (i.e., owner/occupied, rental, congregate care, etc).

Program 11: Require market studies that will address the housing balance prior to approving a senior citizen housing project.

Objectives: Ensure there is an even balance of rental, owner, and congregate care units throughout the City.

Responsible Agency: Architectural Review Board

Funding Source: General Fund

Schedule: Ongoing

ISSUE: FAIR SHARE AND AFFORDABLE HOUSING

Providing affordable housing in Southern California is a difficult task in a good economy. The current recession has made this task even more difficult. High land costs and current lending practices require the City to be creative in its role of encouraging affordable housing. The following goals, policies, and programs are an attempt to leverage scarce resources with State, Federal, and private sources.

Goal 4: To support Federal and State laws which prohibit discrimination in housing on the basis of age, sex, race, and disabilities.

Policies:

4.1 Cooperate with the Los Angeles County Fair Housing Council about any known violations of applicable Federal and State laws.

Program 12: The City participates in a joint powers authority which contracts with the San Gabriel Valley Fair Housing Council to ensure housing discrimination does not take place in Duarte. The City distributes housing information from the public counter and the community newsletter. In addition, the City refers all housing discrimination complaints to the Council. If the Housing Council receives a complaint they will investigate the incident and the property owner will be contacted.

Objectives: Ensure the enforcement of equitable housing laws.

Responsible Agency: Community Development Department/San Gabriel Fair Housing Council.

Funding Source: General Fund/San Gabriel Fair Housing Council.

Schedule: Ongoing

4.2 Provide housing opportunities for the elderly, disabled, homeless, large families, single heads of household, and other special needs groups.

Program 13: The City will establish a first-time homebuyers program to help make homeownership a possibility for current households who are renting. Mortgage Credit Certificates will be issued that will increase ownership opportunities.

Objectives: Provide homeownership opportunities to low and moderate income renters (10 units).

Responsible Agency: Community Development Department

Funding Source: Mortgage and real estate funding sources/ Affordable Housing Fund.

Schedule:

1. Initiate Contract with Community Development Commission to secure program, 1992.
2. Start program, 1992.

Program 14: Enforce the provisions of the American Disability Act by ensuring new and/or rehabilitated units meet ADA requirements.

Objectives: Provide proper access and living arrangements to persons with disabilities.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule: Ongoing

Program 15: The City provides housing assistance referrals to the San Gabriel Valley Fair Housing Council and the Unity Center (a private social service organization located in the City of Monrovia). Although there are no identified homeless persons in Duarte, the City will study the feasibility of allowing homeless/transitional housing facilities in multiple family zones.

Objectives: Assistance to homeless persons.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule:

1. Feasibility study, 1993
2. Public hearings, 1993
3. Enactment of Ordinance, 1994

Program 16: The City will design a program to accommodate special needs groups. The program will target large families and female head of households. The program will consist of Section 8 rental assistance, first and last months rents program, and rehabilitation loans.

Objectives: Provide rental opportunities for special needs groups.

Responsible Agency: Community Development Department

Funding Source: CDBG/HUD funds.

- Schedule:
1. Develop program parameters, 1993
 2. Provide program funding, 1994
 3. Begin housing assistance, 1994

Goal 5: Ensure that housing is made available to all persons regardless of income, age, sex, race, ethnic background, physical status, or family status.

Policies:

- 5.1 The Redevelopment Agency will establish an affordable housing fund to create housing opportunities for low and moderate income households.

Program 17: Establish a Low and Moderate income fund that will provide affordable housing opportunities. The fund may be used, but is not limited to, the following:

1. Mortgage subsidies for new construction and/or rehabilitation of eligible multiple family units;
2. Construction financing for new units;
3. Acquisition of at risk housing units to ensure their preservation;
4. Condemnation and acquisition of properties;
5. Installing public improvements;
6. Incurring the costs of building, engineering, and zoning fees;
7. Technical assistance, design and finance services, consultation and administrative costs for eligible non-profits;
8. Administrative costs for housing assistance groups and/or organizations when such a loan or grant will substantially increase the recipient's ability to secure additional housing funds.

Objectives: Increase the supply of low and moderate income housing units through unit creation and rehabilitation.

Responsible
Agency:

Redevelopment Agency/Redevelopment Agency Staff

Funding
Source:

Affordable Housing Fund

Schedule:

1. Establish Fund, 1991

Program 18:

The Redevelopment Agency will seek to develop an agency owned 2.6 acre site on Huntington Drive with low and moderate income housing units. The following incentives will be offered to make the project feasible:

1. The Agency will put up the land at no initial cost to the developer.
2. The Agency will incur the Cost for all building, zoning and engineering fees.

Objectives:

Provide low and moderate income housing units (72 units).

Responsible
Agency:

Redevelopment Agency/Redevelopment Agency Staff

Funding
Source:

Affordable Housing Fund

Schedule:

1. Identify potential developers, March, 1993
2. Prepare RFP's, April, 1993
3. Select Developer, July, 1993
4. Begin Construction, January, 1994

Program 19:

The Agency will continue to provide its credit support for the issuance of revenue bonds for the purpose of developing affordable housing. Even though additional requirements and restrictions have been instituted at the State and Federal level, the MRB can still encourage affordable rental housing.

Objectives:

Construction of affordable rental for low-income households.

Responsible
Agency:

Redevelopment Agency/Redevelopment Agency Staff

Funding
Source: Affordable Housing Fund

Schedule: Ongoing

Program 20: The Redevelopment Agency will seek to recycle the high density sites identify in Table 3-11 for affordable housing purposes. Incentives like no interest loans, technical assistance and fee waivers will be offered to the current land owners to assist them in the development of their property

Objectives: The development of the identified sites will allow lead to the creation of low and moderate housing units the Agency to meet the inclusionary housing goals identified in Table 3-16 (30 units).

Responsible
Agency: Redevelopment Agency/Redevelopment Agency Staff

Funding
Source: Affordable Housing Fund

Schedule:

1. Contact owners, 1993
2. Identify potential developers, 1993
3. Prepare plans, 1994
4. Enter into development agreements, 1994
5. Begin construction, 1994

5.2 Increase the supply of low and moderate income housing units throughout the City.

Program 21: Prepare and adopt an inclusionary zoning ordinance that will require provisions for affordable housing as part of any residential development that reaches defined thresholds. This ordinance will include provisions for percentage set-asides, in lieu of fees, thresholds, and targeted clientele.

Objectives: Increase the supply of low and moderate income housing units.

Responsible
Agency: Planning Commission/City Council

Funding
Source: General Fund

Schedule:

1. Data collection, 1993.
2. Prepare draft ordinance, 1993.
3. Adoption of ordinance, 1994.
4. Construction of "inclusionary units" beginning in 1994.

Program 22: The City will provide a bonus in the form of a density increase of 25% above the land use designation plus an additional financial incentives, or waivers of equal value if the proposed project provides units for affordable housing. This program will respond to the requirements of State Law (AB 2511).

Objective: Additional housing opportunities for low and moderate income households.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule:

1. Ordinance preparation, 1993.
2. Ordinance review and adoption, 1993.
3. Density bonus/incentives offered, 1993.

Program 23: Establish a rezoning program which will rezone non-residential properties identified in Table 3-12 into high density residential sites. This will allow the sites to be developed with affordable housing.

Objective: Provide additional sites for affordable housing units (634 units).

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule:

1. Identify work program, 1993
2. Conduct public workshops, 1994.
3. Initiate rezonings, 1994.
4. Sites available for development, 1994.

5.3 Continue to pursue Federal and State funding sources to assist in the construction of new housing for low and moderate income families.

Program 24: The City will monitor local, State, and Federal funding sources and make appropriate applications to get additional funding for affordable housing projects. These funding sources include the Home program, excess CDBG Funds, etc.

Objectives: Increase the supply of low and moderate income housing units.

Program 26: Adopt guidelines that will implement the provisions of the California Environmental Quality Act.

Objective: Ensure impacts to the environment will be mitigated.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule: 1. Prepare Guidelines, 1993.
2. Adopt Guidelines, 1993.

7.2 Encourage energy and water conservation measures in the design of future residential development.

Program 27: Prepare and adopt energy conservation ordinances.

Objective: Conservation of natural resources.

Responsible Agency: Community Development Department

Funding Source: General Fund

Schedule: 1. Prepare Ordinance, 1993.
2. Adopt Ordinance and implement its provisions, 1994.

7.3 Encourage higher density housing developments near current and/or proposed transit corridors.

Program 28: The City will prepare a municipal code amendment which will allow a higher density residential development (40 units to the acre) to occur on any multiple family, commercial or industrial zoned property located within 1/2 mile of the proposed light/commuter rail system. The light rail system is being proposed on the A.T & S.F. railroad.

Objective: Increased opportunities for affordable housing

Responsible Agency: Community Development Department

Funding
Source:

General Fund

Schedule:

1. Prepare Ordinance, 1993.
2. Adopt Ordinance and implement its provisions, 1994.

3.4 CONSTRAINTS ON HOUSING PRODUCTION

The availability of housing in Duarte is dependent upon a variety of factors that can either encourage or constrain development. These factors include City Ordinances, State and Federal laws (i.e. building code requirements), and market mechanisms (i.e. financing). The following sections explore governmental regulations, nongovernmental constraints, and environmental factors that may affect the production of affordable housing in the City. The purpose of this discussion is to determine if changes in City procedures or regulations might ease constraints on affordable housing and to identify market factors that can constrain residential development.

3.4.1 GOVERNMENTAL CONSTRAINTS

Cities can constrain the production of affordable housing in a variety of ways, including limiting the amount of land designated for residential development, reducing the density of residential development, imposing fees or exactions (park fees, permit processing fees, etc.), requiring excessive conditions for project approval, and imposing lengthy review periods prior to approval or denial of a project.

However, it is important to note that the goal of producing affordable housing may at times conflict with other City goals, such as the desire to provide sufficient open space and recreation facilities, the desire to protect unique environmental features, and the desire to ensure the health and safety of the City's residents by maintaining the current level of community services and infrastructure. The need to ensure adequate housing for all economic segments of the community must be balanced with these goals.

The following analysis reviews Duarte's Land Use Controls to determine if there is a need to lessen governmental regulations as they pertain to affordable housing.

Density and Development Standards

Land Use Controls are used by cities to control the physical development of the City. The land use controls utilized by the City of Duarte are the General Plan, Zoning and Subdivision Ordinances, and the design review process.

The General Plan provides the blueprint for the physical development of the City. As required by State law, the City of Duarte adopted a new General Plan in September, 1989. Included in the General Plan is a Land Use Element which identifies the distribution of land uses throughout the City. Due to the fact that Duarte is essentially a built-out community, the Land Use Policy Map reflects existing conditions in the City. However, the following residential land use designations and corresponding zoning classification will allow Duarte to meet its share of regional housing.

Very Low Density Residential: This land use designation corresponds to single-family detached homes on lots of between one-half and one-quarter acre in area. Building intensity standards for this category range from zero to four dwelling units per acre and the population density standards range from zero to 12 persons per acre. Corresponding zoning districts for the very low density category includes the R-1B, R-1D and R-1F zoning districts. Virtually all of the land designated as very low density residential is located in the northernmost developed portion of the City. These properties will be developed to meet the City's share of upper income housing.

Low Density Residential: This land use category is also characterized by single-family detached housing units and accounts for a majority of the City's land area. This category permits development to occur at densities ranging from five to eight units per acre. Population density is between 15 to 24 persons per acre. The R-1 and R-1A zoning districts correspond to the low density residential land use designation. There is virtually no land available for this type of development. However, there are opportunities to rehabilitate existing units and make them available to moderate income families.

Medium Density Residential: This category of land is characterized by both attached single-family and multiple-family development at densities ranging from nine to 21 units. The population density standard for this land use designation ranges from between 27 to 63 persons per acre. The R-2, R-3, and R-MH zoning districts correspond to this land use classification. This land use classification provides housing opportunities for very low, low, and moderate income families.

High Density Residential: The High Density Residential land use designation provides for the development of multiple-family housing. The development density for this land use category ranges from 22 to 28 units per acre. The population density standard for this land use category ranges from 69 to 85 persons per acre. Dwelling unit density for senior housing is slightly higher with up to 35 units per acre permitted. The R-1 and R-4 zoning districts correspond to this land use classification. This land use classification provides housing opportunities for very low, low, and moderate income families.

As indicated in the Land Use Element (Page 3-10), implementation of the Land Use Policy might result in the removal of housing south of the I-210 Freeway and along Huntington Drive. To ensure that this does not occur, the area south of the freeway has been designated as a Specific Plan area. This will allow the existing zoning classification of R-1, Single Family, to remain. The Specific Plan process will require the comprehensive development of the area. Because the area is developed with single family homes, it is economically unfeasible to do anything with this area unless land prices exceed the price of the homes. This is not expected to occur in the next twenty years. The net result is the discouragement of any type of development other than the existing neighborhood.

Another area of concern identified in the Land Use Element was the loss of older motels along Huntington Drive. It was felt that future development might impact this transitional housing. While this may be the case, these motels are located in high-density residential zones. Any future development on these sites will allow housing opportunities for very low and low income families. Because the sites are in redevelopment project areas, residents will be allowed an opportunity to reside in the new development. The Agency will make a strong effort to assist them.

Zoning Standards

Table 3-4 illustrates the various zoning districts and the applicable development standards that relate to residential development.

A review of the City's existing development standards for multiple family residential zones (R-2, R-3, & R-4) indicates that densities for each particular zone can be achieved without altering the development standards. Therefore, it is expected that the City's General Plan and zoning regulations will not negatively impact affordable housing.

If it is determined that development standards do not allow a particular site to be developed with enough units to make them affordable, the City will allow the preparation of a Specific Plan. This will allow specific development standards (i.e. reduced setbacks) to be modified without sacrificing the quality of development.

TABLE 3-4

City of Duarte
Residential Zoning Districts
Development Standards

Zoning District	Lot Size (Sq.Ft.)	Lot Coverage	Density (du/ac)	Parking per unit	Height Limits
R-1	6,500	35%	6.7	2.0	35'
R-1A	7,500	35%	5.8	2.0	35'
R-1B	10,000	35%	4.3	2.0	35'
R-1D	20,000	35%	2.2	2.0	18'
R-1F	80,000	35%	0.5	2.0	35'
R-2	8,000	50%	14.5	2.5	35'*
R-3	9,000	50%	21.0	2.5	35'*
R-4	10,000	60%	28.0	2.5	35'*

Source: Duarte Municipal Code

*Note: Height limits in multiple-family zones may be increased by a conditional use permit.

Design Review Process

Policy 1.4 in the Housing Element states that affordable housing shall be compatible with existing neighborhoods. To ensure this, the Architectural Review Board has the authority to impose conditions which will ensure high quality development. This goal has the potential to increase costs which might impact affordable housing projects. To lessen this impact and at the same time preserve existing neighborhoods, the City of Duarte has adopted a set of Design Guidelines that are intended to be used by developers in the design of their project.

The Guidelines provide alternative materials that are architecturally pleasing, yet very cost effective (i.e. light weight concrete roofing materials vs. clay tile, etc.). The Guidelines provide guidance to the developer and speeds up the review process. The net result is that an affordable project can be built that blends into existing neighborhoods.

It is the policy of the Architectural Review Board to ensure compatibility while maintaining permitted density levels. The Design Guidelines and new Development Standards allow compatibility without sacrificing density. Nevertheless, there is an appeal process which is available should the Board decide to reduce density. (It should be noted that density reduction has never occurred since the Board's inception in 1978).

Fees and Exactions

Cities charge fees to offset the costs associated with permit processing. Table 3-5 contains the fees currently in effect in the City and compares them to those of other jurisdictions in the area. As shown, Duarte's fees are comparable or lower than most of the surrounding communities.

To reduce costs associated with constructing affordable housing, the City will consider using funds available from the Low and Moderate Housing Fund to pay for these building fees.

TABLE 3-5

**DEVELOPMENT FEES
DUARTE AND SURROUNDING COMMUNITIES**

Fee	Duarte	Arcadia	Azusa	Monrovia
Design Review	No Fee	200.00	100.00	50.00
General Plan Amendment	1,000.00	956.00	800.00	555.00
Zone Change	850.00	800.00	555.00	555.00
Variance	450.00	350.00	330.00	400.00
Conditional Use Permit	450.00	1,045.00	350.00	450.00
Building Permit ₁	1,697.00	2,000.00	1,700.00	1,565.00
Appeals	No Fee	294.00	45.00	125.00
Subdivision Fee	500.00	800.00	330.00	600.00
Environmental Review	No Fee	No Fee	150.00	200.00
Park Fee ₂	2450.00	185.00	150.00	No Fee
School Fee	1.58/sf	1.65/sf	1.65/sf	1.58/sf

Source: City of Duarte, 1992

1. Based upon a valuation of \$150,000.00.

2. Based upon High Density Development per unit.

Processing and Permit Procedures

Local governments can discourage residential construction by increasing the time and uncertainty in gaining development approval. For residential development, permits may be necessary from a variety of departments. Nonetheless, processing time for residential projects in the City of Duarte is not excessive.

The actual review time is dependent upon the size and location of the project, and whether it is designed to meet City standards or involves requests for Variances from existing Development Standards.

In general, a housing development proposal can expect to pull building permits approximately 90 days from initial staff contact. Prior to submitting plans for Building and Safety plan check, the applicant must first receive approval from the Architectural Review Board. The Architectural Review Board meets on a weekly basis to speed up the review process. If the developer is intending to subdivide, then a Parcel or Tract Map will be required. This can extend time frames an additional 120 days.

Review of the environmental impacts associated with a proposed development under the California Environmental Quality Act (CEQA) can increase the time and cost of processing development applications. If a full EIR is required, the delay can be as much as six months. The City has established Environmental Guidelines to ensure proper environmental review. The Guidelines follow specific time frames as required by State law.

Constraints Specific to Lower Income Housing

Article 34 of the State Constitution requires that any low rent housing project developed, constructed, or acquired in any manner by a public agency, must first be approved by a majority of the voters living in that jurisdiction. The requirements of Article 34 specify voter approval of individual projects which can lead to delays or constraints on the development of public housing. Owner occupied units and/or privately developed rental units do not need to get voter approval.

However, most people have a negative perception of public and/or private housing projects for lower income families. The City will attempt to educate the public to overcome these perceptions.

3.4.2 NONGOVERNMENTAL CONSTRAINTS

Many of the negative factors that affect the housing market cannot be controlled by local government, especially those that relate to the economy. Variables that affect the housing market include cost of construction and the availability of financing.

Cost of Construction

Costs associated with housing development include land and construction costs, and on- and off-site improvements (i.e. grading, installation of storm drains, curb, gutter, sidewalks, and utilities). Most of these costs cannot be avoided or decreased by the developer. However, there are areas the City can address which provide relief for affordable housing.

The City participates in the Community Development Block Grant (CDBG) program which is currently being used to provide needed infrastructure for residential development. In addition, the City's Low and Moderate Housing Fund can be utilized to write down the cost of land and/or provide mortgage payments. Monies that would otherwise be needed to install the improvements can then be channeled back into the project in the form of lower sales price.

The Redevelopment Agency of the City of Duarte is studying the feasibility of establishing programs to reduce project costs and to write down land costs directly affecting affordable housing costs. The goal is to reduce construction costs and provide lower interest financing for off-site improvements.

Projects may also be financed in part by mortgage revenue bonds and/or the Mortgage Credit Certificate Program, or various State and Federal programs.

Availability of Financing

Duarte's location in a major metropolitan area (Los Angeles County) provides abundant opportunities for homebuyers and builders to obtain loans for purchase and/or construction of housing units. A survey in June of 1992 indicated interest rates for a home purchase ranged from 5.5 percent (for an adjustable rate loan) to 8.5 percent for a fixed rate loan with a 30-year term. Interest rate charges for new construction loans averaged 8 to 9 percent. These are relatively low in comparison to past years.

However, lending practices by the financial institutions make it very difficult for developers to get loan approval without help from outside parties (Cities, State, Federal programs).

Because interest rates fluctuate with the national economy, an increase or decrease can stimulate or depress the housing market. An increase in financing costs translates into higher monthly payments for mortgage and/or construction loan. If development costs are too expensive, the owner may elect not to proceed until interest rates drop or a subsidy can be found.

There are a number of local, State, and Federal programs the City can utilize which will offset higher interest rates and construction costs. These programs can assist in the financing of new and/or rehabilitated housing units. They are as follows:

Density Bonus Program: The City offers density bonus for low and moderate income housing units. These incentives provide for increased densities for developers willing to construct low and moderate income units as part of the development.

Redevelopment Agency Set-aside: The Low and Moderate Income Housing Fund provides monies that can be used to purchase land, pay predevelopment costs, provide needed infrastructure, write down mortgage costs, and issue tax exempt bonds. All these tools will reduce housing costs.

Multi-family Bond Program: This program utilizes tax-exempt revenue bonds issued by the County for projects meeting the following criteria:

1. Projects must meet program requirements.
2. Projects located in the City must be approved by both the City and the County, and there must be an execution of a cooperative agreement.
3. The commitment fee must be paid by the developer.
4. The developer must have the necessary credit support from private lenders.

Mortgage Revenue Bonds: These are used to finance construction and mortgage loans as well as capital improvements for multiple-family housing. Federal law requires that 20% of the total assisted units be reserved for low income households.

Marks-Foran Act: Authorizes cities and Redevelopment Agencies to issue tax-exempt revenue bonds to finance residential construction. The issuer must designate certain target areas for rehabilitation efforts and make a commitment to enforce rehabilitation on 95% of the units. The loans may be made for up to forty years for a maximum of \$35,000 per unit, or 95% of the anticipated value following rehabilitation.

California Housing Financing Agency: Provides mortgage loans to local housing agencies, developers, and non-profit organizations for the construction or rehabilitation of multiple-family units. The loan is contingent upon the sponsor providing rental assistance to all or a portion of the units. The Agency also provides insured loans for purchase and rehabilitation.

California Self-help Housing Program: Provides grants and loans to local governments and nonprofit organizations to assist low and moderate income households to construct new homes or rehabilitate existing units.

Mobile Home Park Assistance Program: Provides both financial and technical assistance to low income, seniors, or tenant organizations to purchase the mobile home park. The program provides for loans up to thirty years at 7% interest.

Special Use Housing Rehabilitation Program: Provides subsidies for the rehabilitation and/or acquisition of substandard housing. Loans are 3% for 30-year deferred loans which may be used to acquire substandard apartments occupied by the elderly, disabled, or low income households.

3.4.3 OTHER CONSTRAINTS

Additional constraints which may impede housing construction need to be considered in the development of housing. The Public Safety Element documents the various natural hazards that could impact future housing. For example, wildfire is a major safety concern in the hillside areas located in north Duarte. New development will be required to provide fuel modification zones as a buffer between the development and the wilderness areas. In addition, the homes, including the roofs, must be constructed with fire-retardant materials. These and other measures can substantially increase the cost of new housing.

3.5 HOUSING NEEDS ASSESSMENT

The following section provides an assessment of housing needs in the City and provides an inventory of land suitable for residential development. In addition, this section also addresses the jobs/housing balance and provides population projections for the community.

3.5.1 Regional Housing Needs Assessment

Section 65584 of the California Government Code establishes procedures for identifying regional housing needs every five years. The current 1988 Regional Housing Needs Assessment, (RHNA) prepared by the Southern California Association of Governments (SCAG), is the most current RHNA.

The 1988 RHNA identifies each jurisdiction's existing housing needs as of January 1, 1988, and future housing needs for the July 1, 1988, to July 1, 1994, planning period. State law requires cities to use these numbers in their Housing Elements as a basis for their Housing Plan.

Existing Need

Existing need in the 1988 RHNA is defined as the number of lower income households paying more than 30 percent of their income for housing. Lower income households are defined as those households whose combined income is less than 80% of the County median, adjusted for household size. According to SCAG, there were 2,359 households (35% of the City's total households) in the City of Duarte who were considered lower income households in 1988. One-thousand, and forty-one (44%) of these households were paying more than 30% of their income for housing. Table 3-6 compares Duarte's existing housing needs with those of the surrounding communities.

Table 3-6

1988 Existing Housing Needs Upper San Gabriel Valley Cities

City	Total Households	Lower Income Households	%	Households Overpaying	%
Azusa	12,374	5,296	43%	2,419	46%
Arcadia	18,556	5,066	27%	2,642	52%
Bradbury	96	55	18%	0	0%
Duarte	6,646	2,359	35%	1,041	44%
Glendora	15,789	4,010	25%	2,156	54%
Irwindale	238	92	39%	32	35%
Monrovia	12,822	5,680	44%	2,716	48%
Temple City	11,210	3,565	32%	1,544	43%
Sierra Madre	4,679	1,450	31%	673	46%
Total	82,410	27,573	33%	13,223	48%

Source: SCAG 1988 RHNA

Future Need

Future need is defined as the number of units that would have to be added in each jurisdiction to accommodate the forecasted growth in the number of households by July 1, 1994, as well as the number of units that would have to be added to compensate for anticipated demolitions and changes to achieve an "ideal" vacancy rate.

The future needs are then broken down by the income levels of the households. The four household income categories used are identified as "very low" (less than 50 percent of median), "low" (50 to 80 percent of median), "moderate" (80 percent to 120 percent of median), and "high" (more than 120 percent of median). Table 3-7 summarizes SCAG's RHNA prepared for the City of Duarte for the period beginning January 1, 1988, and ending July 1, 1994.

TABLE 3-7

1988 SCAG REGIONAL HOUSING NEEDS ASSESSMENT

	Very Low Income	Low Income	Moderate Income	High Income	Total
RHNA	151	214	209	421	995
Gap Period	39	55	55	109	258
Total	190	269	264	530	1,253

Source: SCAG, 1988 Regional Housing Needs Assessment

Note: The gap period refers to the time between the expiration of the SCAG-82 modified growth forecast RHNA and the SCAG 88 RHNA.

Progress in Meeting RHNA Goals

To determine Duarte's progress in meeting its share of regional housing, the total number of housing units constructed since January 1, 1988, has been identified. These units were assigned to one of the four income groups using the formula established in Health and Safety Code Section 50052.5. The results are documented in Table 3-8. The affordability range for each unit was determined by comparing the sales price or rent of a new unit to the income levels found in Table 3-9. The units were then placed in the appropriate income bracket.

Table 3-8

**City of Duarte
Progress Toward Meeting
Regional Housing Needs 1988-1992**

Building Activity	
Year	New Units
1988	12
1989	209
1990	49
1991	5
1992	4
Totals	279

Unit Distribution				
Income Group	Future Need	Units Added	Remaining Need	Percent Complete
Very Low	190	49	141	26%
Low	269	112	157	42%
Moderate	264	63	201	24%
Above	530	55	475	10%
Total	1,253	279	974	22%

Source: City of Duarte, Community Development Department

Table 3-9

City of Duarte
Income Limits and
Affordable Housing Costs

Income Limits			
Family Size	Very Low	Low	Moderate
1	\$16,400	\$26,250	\$39,400
2	\$18,750	\$30,000	\$45,050
3	\$21,100	\$33,750	\$50,650
4	\$23,450	\$37,500	\$56,300
5	\$25,350	\$40,500	\$60,800
6	\$27,200	\$43,500	\$65,300
7	\$29,100	\$46,500	\$69,800
8	\$30,950	\$49,550	\$69,800

Maximum Monthly Payments

Family Size	Very Low		Low		Moderate	
	Rent	Own	Rent	Own	Rent	Own
1	410	410	492	575	903	1,054
2	469	469	562	656	1,031	1,203
3	527	527	633	738	1,160	1,354
4	586	586	703	821	1,290	1,505
5	634	634	760	886	1,392	1,625
6	680	680	816	952	1,496	1,74
7	727	727	872	1,018	1,599	1,856
8	774	774	928	1,830	1,702	1,985

Source: HUD

3.5.2 INVENTORY OF SUITABLE RESIDENTIAL SITES

In order to facilitate housing development, the following section identifies residential and non-residential sites where housing could be developed. The sites identified in this section have adequate public facilities, and development could occur with few problems.

State law recognizes a city's total housing needs may exceed its available resources. As a result, the city's ability to satisfy this need within the established time frame may not occur. The quantified objectives identified in Duarte's Housing Plan (Section 3.6) do not match the total housing needs; however, the City has identified adequate sites to handle the City's share of regional housing.

These sites are broken down into three phases. Phase I sites consist of vacant parcels of land whose General Plan designation and zoning would allow residential development to occur as a permitted right. Phase II sites are parcels which are under utilized, but the General Plan and zoning designations are residential. As a result, development could occur with few problems.

Phase III sites are parcels of land which have a potential for residential development however, due to zoning and/or General Plan designation, residential development is less likely to occur. These sites are identified in Tables 3-10, 3-11 and 3-12.

The City is currently in the process of rezoning over 200 parcels of land to ensure General Plan consistency. A 5.3-acre site on Huntington Drive has gone through a General Plan Amendment and Zone Change from General Commercial to High Density Residential to provide an affordable housing opportunity.

Those sites identified as Phase III sites will be reviewed during this process for rezoning consideration.

Table 3-10

CITY OF DUARTE
INVENTORY OF SUITABLE RESIDENTIAL SITES
PHASE I SITES - VACANT PARCELS

LOCATION	ACRES	GENERAL PLAN	CAPACITY
Hillside property	50.0	Very Low	200 SF
Duarte Mesa	4.95	Very Low	15 SF
Vineyard/Markwood	3.22	Low Density	25 SF
Infill lots	2.73	Low Density	15 SF
1424 Highland	1.66	Medium Density	35 MF
928-64 Huntington	2.04	Medium Density	42 MF
1565-69 Huntington	1.80	Medium Density	49 MF
1815 Buena Vista	.61	High Density	17 MF
2500 Huntington	5.30	High Density	148 MF
Total	72.31		255 SF 291 MF

Note: All sites are adjacent to City facility and services.

Table 3-11

CITY OF DUARTE
INVENTORY OF SUITABLE RESIDENTIAL SITES
PHASE II SITES - UNDER UTILIZED PARCELS

LOCATION	ACRES	GENERAL PLAN	CAPACITY
2400 Livermont	2.97	Low Density	19 SF
1932-66 Cinco Robles	3.22	Medium Density	90 MF
Three Ranch/Buena Vista	3.00	Medium Density	63 MF
1648 Huntington	.61	Medium Density	12 MF
1700-22 Huntington	1.25	Medium Density	26 MF
2102-120 Huntington	1.10	Medium Density	22 MF
2351-435 Huntington	3.70	High Density	103 MF
2460-524 Huntington	1.60	High Density	43 MF
Total	17.45		19 SF 359 MF

Note: All sites are adjacent to City facility and services.

Table 3-12

CITY OF DUARTE
INVENTORY OF NON-RESIDENTIAL SITES
PHASE III SITES

LOCATION	ACRES	GENERAL PLAN	CAPACITY
Encanto Parkway	3.0	Industrial	61 MF
1902-32 Buena Vista	4.0	Open Space	112 MF
2140 Buena Vista	6.9	Industrial	193 MF
1423-37 Huntington	1.7	Commercial	47 MF
1515-25 Huntington	1.4	Commercial	39 MF
1821 Huntington	1.6	Commercial	43 MF
2159 Huntington	2.6	Commercial	72 MF
2308-54 Huntington	2.4	Commercial	67 MF
Total	23.6		634 MF

Note: All sites are adjacent to City facility and services.

3.5.3 Jobs/Housing Balance

SCAG, the South Coast Air Quality Management District (SCAQMD), and HCD are promoting jobs/housing balance as a means to solve the number of pressing problems in the Southern California region.

Jobs/housing balance is achieved if the number of housing units is only slightly less than the employment opportunities. Theory provides that most of the people living in the area can also work in the area.

The benefits of such a jobs/housing balance include less traffic congestion, fewer vehicle emissions, decreased commute times, and a reduction in the need for major capital expenditures for the development of mass transit facilities.

A balanced region is technically defined as a region where the ratio of jobs to housing is 1.27 (that is, 1.27 jobs for every unit) in 1984 and 1.20 in the year 2010. Job rich regions refer to those that have jobs/housing ratios substantially greater than that for the surrounding region (1.27 for 1984 and 1.2 for 2010). Housing rich areas have lower ratios than that for the surrounding region.

The effects of the recession on the Los Angeles economy has led to a decrease in population projections. However, the east San Gabriel Valley subregion can expect to experience an increase of 300,000 persons, 122,100 units, and 152,300 jobs between 1990 and 2010. In 1988, this subregion had the lowest jobs/housing ratio (1.03) in the urbanized portion of the SCAG region and, under the trend projection, is only slightly more balanced (1.10) by the year 2010.

As indicated in the above discussion, the east San Gabriel Valley subregion is considered to be housing rich, jobs poor, and the existing jobs/housing ratio of 1.03 is substantially less than 1.27 (which is considered the "balanced jobs/housing ratio" for 1984). Additionally, the subregion is likely to remain "housing rich" in the foreseeable future, since trend projections indicate that the east San Gabriel Valley region will have a jobs/housing ratio of 1.10 if jobs/housing policies articulated by SCAG are implemented.

The City of Duarte is a predominantly residential community similar in nature to the surrounding communities. Based on current housing and employment estimates of 6,847 units and 6,378 jobs, the current jobs/housing ratio is .93, well below the current 1.03 jobs/housing ratio for the subregion and the current ratio of 1.27 for the SCAG region. The City's Redevelopment Agency is actively involved in putting together projects which will encourage more employment in the City.

3.5.4 Population Projections

In spite of the fact that the City has been urbanized for over 40 years, a substantial number of persons were added to the City's population over the past several decades. The precise implementation of the land use policy depicted in the land use plan (Exhibit 2-1) would mean that all of Duarte would be developed exactly as outlined. This assumption is often referred to as the theoretical capacity of the City.

A more realistic measure of population/housing likely to result from the implementation of the General Plan is an effective capacity, which is defined as 80% of the theoretical capacity and focuses on only those areas where change will probably occur. Table 3-12 indicates both the theoretical capacity and achievable capacity if the land use plan is implemented.

TABLE 3-13

CITY OF DUARTE
GENERAL PLAN
POPULATION CAPACITY

			Theoretical		Effective	
Land Use	Area	Density	Units	Persons	Units	Persons
VL Density	172	0-4	688	2,067	550	1,652
Low Density	749	5-8	5,992	18,000	4,793	14,400
Med. Density	110	9-21	2,310	6,939	1,848	5,551
High Density	50	22-28	1,400	4,205	1,120	3,364
Total			10,390	31,211	8,311	24,967
Change from Existing			3,431	9,984	1,352	3,641

Source: City of Duarte, Community Development Department

Assuming that theoretical build-out is possible, an estimated 10,390 housing units would result with a corresponding population of 31,211. Under an achievable capacity development scenario, 8,311 units would be possible with a corresponding population of 24,967. Both figures would allow the City to meet its share of regional housing.

3.6 HOUSING PLAN

The City's Housing Plan is intended to develop a comprehensive housing strategy that will address the issues identified in Section 3.3 and ensure that redevelopment funds are utilized to their maximum potential. The following section establishes goals as to the number of new and rehabilitated units, outlines an inclusionary housing plan which is consistent with State law, and identifies housing projects that are at risk of losing their affordable housing programs.

1.6.1 HOUSING GOALS AND PROGRAMS

Section 3.5.1 identified the number of new housing units that would need to be constructed in the City in order to meet regional housing goals. The section also identified available sites that would accommodate the City's regional housing share.

The limited availability of undeveloped land, the topographical constraints of the larger undeveloped parcels in north Duarte, a slow housing market, and costly land values make it unlikely that the SCAG-RHNA five-year goals can be achieved. While the precise number of new units which could be constructed between July 1, 1992, and July 1, 1994, cannot be determined, the City has projected the number of units likely to be constructed based on past growth rates.

The City anticipates that future growth in the five-year planning period will be roughly comparable to the development that has occurred over the past five years or slightly less.

The City's goals for new housing development assume that the number of new housing units added to the City's housing inventory on an annual basis over the next two years will be comparable or lower with the number added each year between 1988 and 1992. During this time period, 279 units have been built (62 units per year).

Nevertheless, the City remains committed to maintaining housing in the City and ensuring that new housing opportunities are provided. Table 3-13 sets goals for future residential growth and distributes the projected units by income group.

Table 3-14

City of Duarte
Projected Housing Growth
1992-1994

Projected Units	Income Groups				
1992-1994	V. Low	Low	Mod.	Upper	Total
New Units	10	10	75	25	125
Rehabilitated Units	46	56	24	0	106
Conserved Units	25	25	0	0	

Source: City of Duarte

A number of programs will be established that will attempt to encourage new housing construction and to rehabilitate existing housing units. They are as follows:

HOME IMPROVEMENT REBATE: For home exterior rehabilitation where the applicant must qualify as a *low* income household to participate. The program will reimburse the applicant 75% of work performed, not to exceed a maximum of \$2,000.00. It is anticipated that over fifty-six households will be served by this program over the next two years.

Funding Source: Community Development Block Grant Funds

HOME IMPROVEMENT GRANT: For home exterior rehabilitation where the applicant must qualify as a *very low* income household to participate. The maximum grant amount for exterior rehabilitation is \$2,000.00. It is anticipated that over forty-six households will be served by this program over the next two years.

Funding Source: Community Development Block Grant Funds

HOME IMPROVEMENT LOAN: For home exterior rehabilitation where the applicant must qualify as a *low/moderate* income household to participate. The loan is at zero percent interest, and payments are deferred until the property changes ownership. The maximum loan amount is \$5,000.00 with a minimum of \$2,000.00. It is anticipated that over twenty-four households will be served by this program over the next two years.

Funding Source: Community Development Block Grant Funds

EAST SAN GABRIEL VALLEY CONSORTIUM: The East San Gabriel Valley Consortium is a non-profit agency that will provide home rehabilitation services to low income individuals who are elderly, disabled, or single heads of households. This program is designed to improve deteriorated housing units in an effort to beautify the community and aid low income homeowners/renters.

Highlights of the program include efforts to eliminate blight in targeted low income neighborhoods and job training for youth.

Funding Source: Redevelopment Low & Moderate Fund

HOME PROGRAM: The Home Investment Partnerships Program was authorized as part of the National Affordable Housing Act. Funds are allocated for a housing production program designed to facilitate the development and preservation of housing units, particularly rental units, which will provide long-term affordability to low income persons. The Home Program provides funds for rehabilitation, acquisition, tenant-based rental assistance, and new construction. The program is targeted to low/moderate income households.

The City will identify sites for affordable housing and pursue a grant to help offset construction costs.

Funding Source: No City funds required FY 92/93 - Matching funds thereafter

MORTGAGE CREDIT CERTIFICATE PROGRAM: The Mortgage Credit Certificate (MCC) program is intended to assist the first-time homebuyer in purchasing a single-family home. The MCC program will provide assistance to the first-time homebuyer by allowing an eligible purchaser to take up to 20 percent of his or her annual mortgage interest payment as a dollar for dollar tax credit against Federal income tax. The Mortgage Credit Certificate is used to assist the qualifying homebuyer in obtaining an effective reduction in monthly mortgage payments. By adjusting the homebuyer's allowances on his or her W-4 form to reduce the amount of tax withheld by the employer, the purchaser has more monthly income available to cover mortgage payments.

Funding Source: Redevelopment Low & Moderate Fund

DENSITY BONUSES: If a developer agrees to build housing with at least 20% of the units targeted for low income households, the City could provide a density bonus and/or the following regulatory concessions:

1. A reduction of site development standards (i.e. setback and square footage requirements, ratio of parking spaces, etc).
2. Approval of mixed use zoning if other land uses will reduce the cost of the housing development.
3. Other regulatory incentives or concessions which will result in identifiable cost reductions, such as developer's fee waivers, either by reducing building permit cost or special provisions for the on- and off-site improvement installations.

Funding Source: General Fund

INCLUSIONARY ZONING: Inclusionary zoning requires that a minimum percentage of units in a private residential development project be made affordable to low and moderate income households. Most communities apply inclusionary zoning to projects of a certain minimum size, usually between five and ten units. Many allow either construction of the low income units or payment of an in-lieu fee. The average requirement is that 10% of the residential project be affordable to low income households.

Funding Source: General Fund

The above mentioned programs will form the basis of the City's Housing Plan. They are intended to encourage construction and rehabilitation as well as provide a foundation for the 1994 Housing Element.

3.6.2 Inclusionary Housing Plan

Redevelopment Agencies are required to guarantee a minimum of 15% of all new or rehabilitated dwelling units be made available at affordable housing costs to persons earning less than 120% of the county median (of which 6% of the total units shall be available to very low income persons).

To ensure that Redevelopment Agencies satisfy the "inclusionary housing" obligations, State law now requires each Agency to prepare an inclusionary Housing Plan. The purpose of this section is to comply with State law.

Table 3-15 lists the redevelopment project areas in the City of Duarte and lists the number of housing units currently existing in each project area, as well as the number of potential units that could be added to the area at buildout.

According to Redevelopment Law, Agencies can only count affordable housing units which are subject to covenants that make the units affordable for as long a period as possible (minimum requirements are 15 years for rental units and 10 years for owner-occupied units).

Table 3-15

City of Duarte
Redevelopment Project Areas

Project Area	Exist. Units	Pot. Units	Total Units	15%	6%
Huntington Drive I	406	0	406	60	24
Huntington Drive II	456	180	636	95	38
Davis Addition	633	3	663	99	39
Las Lomas	190	45	235	35	14
Rancho Duarte I	132	50	182	27	10
Rancho Duarte II	49	77	126	18	7
Rancho Duarte III	0	0	0	0	0
Total	1,866	355	2,248	334	132

The City's Redevelopment Agency has been actively involved in the creation of housing units since it's inception in 1976. Specifically, in 1978, the Agency issued \$39,670,000 of mortgage revenue bonds (MRB's) to construct 446 single family attached and detached dwelling units in two projects located in the Davis Addition redevelopment project area.

In 1979, the Agency sold a \$2,625,000 issue of MRB's to finance a mortgage loan on a 112-unit apartment complex in the Davis Addition. Also, in 1979, the Agency issued \$54,420,000 MRB's to fund mortgage financing programs in the Las Lomas and Huntington Drive Project Areas. This led to the creation of 357 single-family attached and detached dwelling units and 332 condominium units. Finally, in 1981, an additional \$15,750,000 MRB's were issued that led to the creation of 120 condominium units.

The MRB's were utilized to purchase mortgages that offered below market interest rates and 5% down payment requirements. This provided homeownership opportunities to many households who would otherwise not qualify. However, there were never any covenants recorded that required the units to remain affordable.

As a result, many of the Agency-assisted units built in the 1970's and 1980's remain affordable in comparison to prices in surrounding communities. However, under State law, they do not count as affordable housing.

To resolve this issue, the Agency will begin utilizing its 20% set-aside funds to help make some of the existing units more affordable. In addition, units outside the project areas will be made more affordable to low and moderate income families to help meet the 15% inclusionary numbers.

The Agency initiated a Low and Moderate Income Housing Fund during the 1991/92 fiscal year. At the end of the first year there was \$535,629 available for affordable housing activities. It is anticipated that an additional \$1,200,000 will be deposited into the fund during this planning period. The majority of these funds are set aside for future projects. In 1989, the Agency purchased 2.63 acres of land area for commercial development at a cost of approximately \$22.00 a square foot.

At this point in time, it has been decided that commercial development of the site is unfeasible. As a result, the property with a value of \$2,500,00 has been transferred into the affordable housing fund. The Agency is actively seeking a developer to develop the site with affordable housing. Approximately \$500,000 per fiscal year will be utilized to pay off the land. This will leave approximately \$300,000 for administrative costs, and future projects. The 2.63 acre site could be developed with approximately 75 units.

Table 3-16 is the basis for the Redevelopment Housing Plan. It estimates the number of new or rehabilitated residential units that will be made available on a citywide basis. Each new or rehabilitated unit will then be assigned to a project area in order to satisfy the 15% rule.

Table 3-16

**City of Duarte
Redevelopment Housing Goals
1993 - 1998**

Unit Type	Income Group		
	V. Low	Low	Moderate
New Construction	10	10	20
Rehabilitation	10	10	30

Source: City of Duarte

6.3 Preservation of Affordable Housing Units At Risk of Conversion to Market Rate Housing.

Section 65583 of the California Government Code requires Housing Elements to include strategies for preserving subsidized housing developments that are in danger of losing rent restrictions. This section provides a list of subsidized housing projects in the City, identifies those units that are potentially at risk of conversion to market rate housing and provides an inventory of programs that can be used to preserve housing for lower income households. State law requires the analysis to cover a ten-year planning period. The City of Duarte's initial planning period will begin July 1, 1989 and end June 30, 1999.

The City utilized a variety of sources to obtain information regarding subsidized housing projects including California Housing Partnership Corporation, Federal Department of Housing and Urban Development, Los Angeles County Community Development Commission, City of Duarte and the State of California.

Inventory of Subsidized Housing Projects

The type of ownership and subsidy source of a project are key in determining the degree of risk and likelihood that the project will convert to market rate rents. All subsidized projects in the City are subsidized by the Department of Housing and Urban Development's (HUD) Section 202, 236 and Section 8 programs.

The conversion of subsidized housing to market rate housing may occur at any time after termination of a contract or prepayment of a loan. There are no subsidized projects in the City which are funded by State or local programs.

Fortunately, all subsidized housing projects in the City are subject to the Lower Income Housing Preservation and Resident Homeownership Act (LIHPRHA) which restricts the ability of the owners to prepay their mortgages and eliminates the potential termination of affordable rent agreements.

Under HUD's FHA Section 236 Category, low-interest loans are provided for 90 % of the project financing for a 40-year term. Rents are controlled by HUD and are based upon the cost of operations and debt service. Conversion to market rate housing occurs when the owners prepay their 40-year loan after the first twenty years.

FHA Section 202 category provides financing for the construction of new housing available to senior citizens and handicapped persons. This type of project is locked in to low income use restrictions for the full mortgage term and therefore does not have a mortgage prepayment option.

Under the Section 8 programs, the tenant pays 30% of his gross income to the owner as rent and HUD pays the difference between the tenant's contribution and the fair market rent of the unit. The market rate is established by HUD based upon the median income in the region, the number of persons in the household, and other factors.

At the expiration of the Section 8 contract, the owners may choose to renew the contracts for the next five years. Section 8 contracts are automatically reviewed by HUD for the next five-year period, as a general practice.

If the owner does not want to renew, a Notice of Intent must be filed one year before expiration. During the year before expiration, HUD may offer incentives (e.g. allowing higher rents or refinancing the mortgage) to preserve the units. Exhibit 3-17 provides a list of subsidized housing projects in the City.

Table 3-17

**City of Duarte
Subsidized Housing Projects**

Project/Address	Fund Source/ Const. Date	Number of Units	Earliest Date of Sub. Termination
Duarte Park 1901 Buena Vista	FHA 236 & Sec. 8 (1972)	101 Sr. units w/ 80 Sec. 8 units	2012 (FHA) 2007 (Section 8)
Duarte Manor 1235 Highland	FHA 236 & Sec. 8 (1974)	42 Sec. 8 units	1994 (FHA) 1996 (Section 8)
Royal Vista Ter. 1310 Royal Oaks	FHA 202 & Sec. 8 (1983)	75 Sr. units w/ 74 Sec. 8 units	2023 (FHA) 2003 (Section 8)

Units At Risk

During the initial five-year planning period, 42 units of affordable housing in the City of Duarte may be lost as rent restrictions expire on Federal subsidies. Duarte Manor is the only project considered to be at risk of conversion to market rate housing within the next ten years. Duarte Park Apartments is not at risk at this time due to approval of an action plan by HUD. Thus, they are not subject to the more detailed analysis below.

Duarte Manor Apartments has 42 two-bedroom units and is owned by Duarte Manor Association, a private partnership. The property was constructed in 1972 with HUD Section 236 funds. It currently has a Section 8 Contract for all 42 units, which expires in 1996. The FHA loan has a prepayment option starting January, 1994. However, it is the intent of the owners to continue paying the FHA loan without exercising its prepayment option. As a result they have not filed a Notice of Intent (NO) to convert the project. Because the project has not filed an action plan, future NO will be subject to the regulations of Title VI (Low Income Housing Preservation Residential Homeownership Act of 1990 - LIHPRHA). This means prepayment of the Section 236 mortgage must show proof that current tenants would not be affected economically; the affordable housing stock in the area is not affected; safe and sanitary housing near jobs is available to low income residents; housing for minorities is not affected; and also other restrictions. The future conversion of this project will lead to a loss of 42 low income units in the City.

Royal Vista Terrace has 75 one-bedroom senior citizen units and is owned by the Southern California Presbyterian Church, a non-profit agency. It was granted a \$3,523,000 loan in 1983 under FHA Section 202 and a Section 8 contract for 74 units. The FHA loan is not eligible for the prepayment but the Section 8 contract will expire in 2003. The termination of the Section 8 contract will lead to the loss of 74 affordable housing units.

Replacement vs. Preservation

In order to determine the more feasible alternative between preservation and replacement, the City will compare the cost of buying out the project for preservation and the cost of building a new development with the same number of units. Land prices in the City of Duarte vary with the most expensive multiple-family properties located on Huntington Drive.

Using sales figures from comparative properties, City staff is able to approximate a price range of \$13.00 to \$20.00 a square foot for vacant land. The average cost of construction for multiple-family housing in 1992 is approximately \$60.00 a square foot.

Based upon these figures, Duarte Manor, with 103,237 square feet of land area and 34,558 square feet of floor area would cost approximately \$3,600,000 to be built today. Because the market is often driven by the number of dwelling units more than anything else, a 42-unit apartment project would have a market value based upon its gross rent and expenses. Considering average rents in the City right now, a new 42-unit apartment in the City would cost approximately \$3.5 to \$4.5 million. The market value of Duarte Manor is substantially lower at approximately \$2.4 to \$2.5 million. On this basis, preservation would be the most viable alternative because it would involve less capital outlay, would not involve tenant displacement, and would allow continued use of the existing structure. On the other hand, it would require greater operating costs and have less amenities than would be available to a new project.

The Royal Vista Terrace has a Section 8 conversion date of 2003. Estimating its replacement or preservation costs at this time would not reflect real estate trends or inflation costs by 2003. The City will analyze this project during the 1999 Housing Element Update.

Available Funds

Available resources in the City of Duarte which may be used to buy out the Duarte Manor project include redevelopment funds, CDBG monies, bond financing, non-profit agencies, the California Partnership Corporation, the County of Los Angeles Housing Authority (Community Development Commission) and other entities.

The Redevelopment Agency of the City of Duarte has a low and moderate income housing fund which sets aside 20% of its tax increment for housing. At the end of the 92/93 Fiscal Year it is anticipated that there will be a fund balance of over \$600,000. These monies could be used to help offset costs associated with the preservation of Duarte Manor.

The City's CDBG program receives approximately \$230,000 of Federal subsidies. The money is used for housing rehabilitation, Code Enforcement, and other services benefiting low and moderate income residents. Approximately \$150,000 of these funds would be available for preservation. The City may also use bond financing to help preserve Duarte Manor, subject to a two-thirds vote of the local electorate.

The housing authority in the City of Duarte is the Los Angeles County Fair Housing Council. Funds are currently not available for preservation. However the City will support any attempt to allocate funds in the future for housing preservation.

These financial resources place Duarte in a position to assist in the preservation of Duarte Manor should the owners decide to make it a market rate development, however, there would have to be insufficient funds to acquire the property without additional resources. Local lenders may apply for funds from the Federal Housing Finance Board's Affordable Housing Program (AHP). This program is relatively new (2 years old) and makes subsidized financing available for participating lenders for the purchase of multiple-family housing. This program would be helpful for private and non-profit groups to acquire one of the projects.

Other private resources and programs that could be tapped for preservation of the low income units include: Home Aid, Southern California Presbyterian Homes, Ralph Carrico, Monrovia Resource Corporation, etc.

Courses of Action

The City of Duarte will monitor and respond to any notice of intent or plan of action which may be filed on any of the projects identified in Table 3-16. The City's objective is to ensure that any subsidized housing project remain affordable for the longest period possible.

Ongoing talks will continue with the property owners to insure that existing rent contracts are renewed. If prepayment occurs or if a contract is about to expire, the City will contact the affected tenants and inform them of their rights. Entities involved in affordable housing development will be contacted to assess their interest. If the City is not in a position to buy out the project, it may provide rehabilitation funds, technical assistance, and other forms of incentives to parties who may be interested in acquiring and maintaining affordable housing projects.

HOUSING ELEMENT BACKGROUND REPORT

3.7 INTRODUCTION

The Housing Element Background Report provides detailed technical data regarding demographics, housing, and socioeconomic characteristics and trends in the City of Duarte. The data used in this report were obtained from a variety of sources, including the United States Bureau of Census, Southern California Association of Governments, California State Department of Finance, and the Community Development Department of the City of Duarte. The information contained in this report is intended to provide an assessment of housing needs and resources in the City.

3.8 DEMOGRAPHIC CHARACTERISTICS

POPULATION

Population in the City of Duarte has grown steadily since incorporation in 1957, with the 1980's showing the most substantial increase in population since the postwar building boom of the late 1940's and early 1950's. The population increase correlates with an increase in housing construction during this same time period.

The 1980 Census reported a population of 16,766 persons, an increase of 1,785 persons from the 1970 population. By 1990, the City's population had climbed over the 20,000 mark to stand at 20,688 persons. This 3,922 person increase during the previous ten years represents a population growth rate of approximately 23.4%. In comparison, the County of Los Angeles experienced an 18.5% increase and the West San Gabriel Valley posted a 14.6% gain in population.

Population trends for each census tract in Duarte are indicated in Table 3-18, while Table 3-19 shows population growth per year, beginning in 1980.

TABLE 3-18

CITY OF DUARTE
POPULATION GROWTH
PER CENSUS TRACT: 1980/1990

Census Tract	1980	1990	% Growth
4300.01	4,000	4,756	19.0
4300.02	4,529	6,652	47.0
4301.01	4,371	4,636	6.0
4301.02	3,866	4,644	20.0
Total	16,766	20,688	23.4

Source: 1980 and 1990 United States Census

TABLE 3-19

CITY OF DUARTE
YEARLY POPULATION GROWTH
1980 - 1992

Year	Population	Change	Percent Growth
1980	16,766	N/A	N/A
1981	17,850	1,084	6.1
1982	18,650	800	4.3
1983	19,300	650	3.4
1984	19,800	500	2.5
1985	20,050	250	1.2
1986	20,550	500	2.4
1987	21,150	600	2.8
1988	21,150	0	0.0
1989	21,326	176	0.8
1990	20,688	-638	-3.0
1991	20,800	112	0.5
1992	20,977	177	0.8

Source: 1980 and 1990 U.S. Census
State of California, Department of Finance

Duarte and surrounding cities have experienced moderate to substantial population increases since 1970. Table 3-20 compares population trends for Duarte to those of neighboring cities during this time frame.

TABLE 3-20

POPULATION TRENDS
UPPER SAN GABRIEL VALLEY REGION
1970 - 1990

Total Population				Percent Change 1970 to 1990	
Cities	1970	1980	1990	#	%
Duarte	14,981	16,766	20,688	5,707	38.1
Monrovia	30,562	30,531	35,761	5,199	17.0
Arcadia	45,138	45,993	48,290	3,152	7.0
Azusa	25,217	29,380	41,333	6,116	63.9
Irwindale	784	1,030	1,050	266	33.9
Bradbury	838	846	829	-9	0.1
Upper San Gabriel Valley	117,520	124,546	147,951	30,431	25.9
L.A. County	7,032,075	7,477,421	8,863,164	1,831,089	26.0

Source: 1970, 1980, and 1990 United States Census

The City's population growth rate appears to have slowed since 1988. This can mainly be attributed to the economic slowdown that has severely affected the Los Angeles housing market. The 1990 decline can also be attributed to the official census count, rather than a decline in actual population. Population growth rates should remain relatively stable during the 1990's.

RACE AND ETHNICITY

The United States Census categorizes persons according to race and includes the following categories: (1) White; (2) Black; (3) American Indian, Eskimo, and Aleutians; (4) Asian and Pacific Islander; and (5) Other. The Census further classifies persons of Hispanic origin. Individuals were asked to classify themselves as to whether or not they were Hispanic. For this reason, persons categorized as Asian, Black, White or Other may also be included in the Hispanic ethnicity classification. Race and ethnicity of those persons living in Duarte in 1990 are indicated in Table 3-21.

TABLE 3-21

CITY OF DUARTE
RACE AND ETHNICITY: 1990

Race/Ethnicity	Persons	Percent	% Change from 1980
Asian	2,268	11.0	192%
Black	1,766	8.5	19%
Hispanic/Spanish	7,160	34.6	42%
White	9,380	45.3	-1%
Other	114	.6	96%
Total	20,688	100%	

Source: 1990 U.S. Census

The ethnic diversity of Duarte matches that of Los Angeles County as a whole. Trends indicate a rising population of immigrants and a declining white population, in terms of a percentage of the total population. The percentage of foreign-born residents increased from 17.8% to 27.6% since the last census. The largest increase in ethnic populations occurred in persons of Asian descent, where a 6.3% increase was reported.

AGE

The City of Duarte has experienced two major growth spurts since its incorporation. This activity is evident when the age characteristics of the community are examined. Statistically, the decades of the 1950's and the 1980's saw the biggest increases in housing production; therefore, more people moved into the community.

The aging of the 1950's homeowners has led to an increase in the City's median age from 27.1 in 1970 to 32.1 in 1990. Conversely, the 1990 statistics indicate a rising level of school age children. This can be attributed to the housing activity of the 1980's. The following table is a breakdown of the City's population by age.

TABLE 3-22

CITY OF DUARTE AGE CHARACTERISTICS

Age Range	1980	1990	Change	Percent
0-4	1,553	1,873	338	22.0
5-17	3,587	4,032	445	12.4
18-24	1,941	1,937	-4	-.2
25-54	6,430	8,997	2,567	39.9
55-64	1,461	1,490	29	1.9
65-74	916	1,229	313	34.2
75+	896	1,130	234	26.1
Total	16,766	20,688	3,922	23.4
Median Age	29.1	32.1		

Source: 1980 and 1990 United States Census

HOUSING CHARACTERISTICS**AGE AND CONDITION OF HOUSING**

The 1990 Census was used to provide an estimate of the age of housing units in the City. In addition, data obtained from the State Department of Finance (DOF) and the City's Building Department were used to supplement the information from the 1990 Census. According to 1992 DOF reports, there were an estimated 6,847 housing units in the City of Duarte. Most of the housing units in the City are relatively new, with approximately 45% of these units being built after 1970. Table 3-23 summarizes the age of the housing stock in Duarte.

TABLE 3-23

**CITY OF DUARTE
AGE OF HOUSING STOCK**

Year Built	Units	Percentage
Before 1939	162	2.4
1940-1949	804	11.7
1950-1959	1,856	27.1
1960-1969	958	14.0
1970-1979	1,100	16.2
1980-1989	1,878	27.4
1990-Present	89	1.2
Total	6,847	100.0

*Source: California Department of Finance, 1992
1990 United States Census
City of Duarte Building Department*

A housing condition survey was conducted by City staff in June 1992, and the results are depicted in Exhibit 3-4. The survey used a three-class system recommended by the Federal government to rate housing structures without entering the buildings. This system included the following classification description:

1. Adequate conditions: No defects, or slight defects correctable with normal maintenance.
2. Deteriorating: Intermediate defects requiring repair if unit is to provide safe and adequate shelters; more serious defects than those correctable by routine maintenance.
3. Dilapidated: Serious defects making the building a safety hazard or creating an unhealthy environment.

Of the existing 6,847 housing units in the City, only four units are identified as deteriorated (Classification 2) and only two are classified as dilapidated (Classification 3). Within the past five years, only three houses classified as deteriorated and one classified as dilapidated have been demolished.

Another factor in determining the living condition of a dwelling unit is whether or not there is plumbing. The 1990 Census lists 19 units in the City as lacking complete plumbing facilities. According to these results, Duarte has fared well in the general condition of its housing stock.

Housing Unit Type

While Duarte has experienced a population increase of 24% between 1980 and 1990, housing production has exceeded this rate. Since 1980, 1,967 dwelling units have been added to the City's housing stock. During this same time period, 117 units have either been destroyed or removed from the City. The result is a net gain of 1,850 dwelling units, a 32% increase.

Table 3-24 shows the distribution of housing units by type in 1970, 1980, and 1990.

Table 3-24

CITY OF DUARTE
HOUSING UNIT TYPES
1970-1990

Unit Type	1970		1980		1990	
	Units	%	Units	%	Units	%
Single-Family	3,646	80.2	4,243	74.0	5,016	74.3
Duplex	458	1.3	200	3.5	286	4.2
5 or More	599	13.2	1,087	19.0	1,167	17.3
Mobile Homes	242	5.3	201	3.5	289	4.3
Total	4,545	100.0	5,731	100.0	6,758	100.0

Source: 1970, 1980, and 1990 United States Census

Examination of the preceding table indicates that there has been a slight decrease in the proportion of housing units that are single-family dwellings, and a slight increase in the proportion of multi-family units. Higher density residential development (duplex to five or more units) accounted for approximately 13% of the total housing in the City in 1970. By 1990, these units made up over 17% of the City's housing stock.

At the present time, new housing development in the City seems to be evenly divided between the construction of detached single-family units and attached multiple-family developments. Multiple-unit residences in Duarte consist of condominiums, townhouses, and apartments. Their construction has largely been concentrated in the central portion of the City along Huntington Drive, while detached houses have been more often constructed in the hillside (northern) section of the City.

Most recently, the trend in multi-family construction has been toward single family detached homes on small postage stamp lots.

Tenure

While housing costs in the region have made home ownership more and more difficult for first-time homebuyers, data indicates that housing prices in Duarte are more affordable than the surrounding region. A number of factors appear to be attracting homebuyers to the City, including proximity to major employment centers, housing affordability and Redevelopment Agency assistance.

In 1990, approximately 69.3% of year-round housing units were owner occupied and 28% were renter occupied. Table 3-24 summarizes housing tenure statistics obtained from the 1990 census. The statistics reveal that Duarte has a higher proportion of owner occupied units compared to many neighboring cities, and a much higher proportion than the County-wide average.

The percentage of owner occupied units in the City has remained relatively stable since 1980, increasing slightly from 67.7 percent to 69.3% in 1990. The percentage of renter-occupied units remained stable during this time period at 28% of the total year-round housing units.

Closer examination of the data indicates that there are more owner occupied units than renter-occupied units in all but one of the City's four census tracts. Over 79% of the City's rental units in 1990 were located in Census Tracts 4300.02 and 4301.01. The smallest percentage of rental units (7.8%) were found in Census Tract 4300.01. This tract also has the highest percentage of owner-occupied housing units.

TABLE 3-25

Housing Tenure: 1990
Duarte and Surrounding Communities

City/Co.	Total Units		Owner		Renter	
	Occupied	Vacant	Units	%	Units	%
Arcadia	18,352	1,131	11,300	61.2	7,052	38.4
Azusa	12,651	581	6,093	49.0	6,558	46.5
Bradbury	266	15	241	86.5	25	7.4
Duarte	6,530	228	4,524	69.3	2,006	28.0
Monrovia	15,532	12	6,223	46.2	7,019	49.0
Irwindale	270	12	157	55.5	113	40.9
L.A. CO.	2,989,552	173,791	1,440,830	48.5	1,548,722	51.5

Source: 1990 United States Census

1990 HOUSING TENURE
BY CENSUS TRACT

Census Tract	Total Units		Owner		Renter	
	Occupied	Vacant	Units	%	Units	%
4300.01	1,496	20	1,379	92.2	117	7.8
4300.02	2,132	73	1,532	71.9	600	28.1
4301.01	1,695	42	791	47.2	904	52.8
4301.02	1,207	93	822	65.5	385	34.5
Total	6,530	228	4,524	69.3	2,006	30.7

Source: 1990 United States Census

Affordability

Housing affordability is becoming a major problem in the Southern California region. Housing prices and rental rates continue to climb, consuming more and more of each household's income.

The City of Duarte provides an affordable housing opportunity to live in a well-established community that is close to major employment centers.

A survey of housing affordability in Duarte was conducted using data from housing sales that occurred in 1991 and the first seven months of 1992. The survey lists the minimum, maximum, average, and median sales prices for two, three, and four or more bedroom housing units in Duarte. The median housing price in Duarte of \$169,000 is significantly lower than the Los Angeles County median of \$214,000, and over 20% lower than the Orange County median of \$220,000.

TABLE 3-26

CITY OF DUARTE
HOUSING PRICES: 1991/92

	1-Bedroom	2-Bedroom	3-Bedroom	4+Bedroom
Single-Family				
Number	2	42	76	27
Minimum	125,000	120,000	90,500	142,000
Maximum	179,000	228,500	325,000	456,000
Average	152,000	152,238	181,031	226,500
Median	N/A	145,000	162,000	230,000
Condo/Townhouse				
Number	0	31	34	0
Minimum	0	5,000	125,000	0
Maximum	0	53,000	190,000	0
Average	0	85,308	148,845	0
Median	0	120,000	133,000	0

Source: County of Los Angeles, Tax Assessors Office

In 1988, the Southern California Association of Governments (SCAG) estimated the number of households for each city within the region that were overpaying for housing. Overpayment is defined as paying in excess of 30% of their income for housing. According to SCAG, a total of 1,042 households or 15.4 of the total households in the City are overpaying for housing. Overpayment statistics from SCAG are summarized in Table 3-27.

TABLE 3-27

CITY OF DUARTE
OVERPAYMENT FOR HOUSING

	Very Low	Low	Total Household
Renters	185 units	444 units	629 units
Owners	148 units	265 units	413 units
Total	333 units	709 units	1,042 units

Source: Regional Housing Needs Assessment, SCAG, 1989

3.10 SOCIO-ECONOMIC CHARACTERISTICS

Social and economic factors play a major role in determining where persons live and the quality of their living conditions. The following section examines income characteristics, overcrowding, special housing needs, and employment characteristics in the City of Duarte as they relate to housing.

Income Characteristics

The median household income in Duarte in 1979 was \$18,796, slightly higher than the County median income of \$17,551.

Statistics from the 1990 Census indicate that the 1989 median household income for the City had grown to \$37,695, in comparison to the County median of \$34,965.

According to preliminary figures from SCAG (June, 1992 Data summary - RHNA) a total of 1,437 households, or 22% of the total number of households, have incomes that are less than half of the County median household income. These households are classified as having "very low" incomes.

An additional 794 households (12.1% of the Citywide total) were identified as being "low income households," earning between 51 and 80% of the regional median. In all, 2,231 households, or 34.1% of the City's households, are classified as lower income households. Table 3-28 summarizes household income levels in Duarte.

TABLE 3-28

CITY OF DUARTE
1990 HOUSEHOLD INCOME LEVELS

HOUSEHOLD INCOME	NUMBER OF UNITS
Less than \$ 5,000	173
\$5,000 to \$ 9,999	640
\$10,000 to \$14,999	363
\$15,000 to \$24,999	723
\$25,000 to \$34,999	987
\$35,000 to 49,999	1,384
\$50,000 to \$74,999	1,433
\$75,000 to \$99,999	520
\$100,000 to \$149,999	254
\$150,000 or more	68
Total Households	6,530
Median Household Income	\$37,695

Source: 1990 United States Census

The number of persons and families in the City below the poverty level varies by census tract. Census Tract 4300.01 has a much lower percentage of persons with incomes at the below poverty level (2.7) than that found in the other three census tracts (ranging from 7.9 to 11.4%).

It is important to note that the City's poverty levels have declined from 1980 levels, in contrast to County-wide trends. Table 3-29 illustrates poverty levels in 1979 and 1989.

TABLE 3-29

**CITY OF DUARTE
POVERTY LEVELS**

Census Tract	Median Income		Families Below Poverty		% Below Poverty	
	1979	1989	1979	1989	1979	1989
4300.01	26,424	58,233	40	21	3.5	1.6
4300.02	17,429	36,262	100	114	8.5	7.4
4301.01	16,397	28,569	86	95	8.7	9.9
4301.02	16,093	36,151	82	79	9.3	8.0
Total	18,796	37,695	308	309	7.4	6.4

Source: 1980 and 1990 United States Census

Certain types of households have a more difficult time in paying for housing than traditional households. These include households headed by an elderly person or a female, and families with children. Table 3-30 classifies households by poverty level.

TABLE 3-30

CITY OF DUARTE
POVERTY STATUS
BY HOUSEHOLD TYPE: 1990

Household	Below Poverty	Above Poverty
Elderly (65+)	96	1,638
Families Children 0-17	395	4,242
Female Headed With Children	175	604
Without Children	128	649

Source: 1990 United States Census

In 1992, the Department of Public Social Services indicated that 1,602 persons in Duarte were receiving public assistance. Of these, 901 persons were receiving aid through the Aid to Families with Dependent Children Program (AFDC), 21 received general relief, 121 received food stamps, and 559 received Medi-Cal assistance only.

Overcrowding

In 1990, 19.2% of the households in Los Angeles County were overcrowded. In comparison, only 14.5% of Duarte's households were classified as overcrowded. The Census Bureau defines an overcrowded household as a dwelling unit occupied by more than 1.01 persons per room. Severely overcrowded units are those with 1.5 or more persons per room. The City's population increased from 16,766 persons in 1980 to 20,688 in 1990, an increase of 4,211 persons, or 25%. During this same time period, growth in housing outpaced population growth, with the housing supply increasing by 1,967 units, or 48%.

Supported by the growth in housing supply, the average household size in Duarte has slightly decreased since 1980. U.S. Census statistics show that the average household size was 3.05 persons per unit in 1980, while data for 1990 indicate a decrease to 3.04 persons per unit. For purposes of comparison, the current average household size for Los Angeles County is 2.8 persons per unit. Table 3-31 summarizes overcrowded households in the City of Duarte.

TABLE 3-31

**CITY OF DUARTE
OVERCROWDED HOUSEHOLDS: 1990**

Year	Total Households	Household Size	Overcrowded Households	Percent of Households
1980	5,494	3.05	638	11.6
1990	6,530	3.04	947	14.5

Source: 1980 and 1990 United States Census

Female Headed Households

Households with employed female heads frequently earn low incomes, partly because of lower overall wage rates for female employees. The households with unemployed female heads may be dependent on welfare, child support, alimony, or other subsidy payments, and consequently are often in the very lowest income groups. For either type of household, the housing opportunities are limited unless the family pays a disproportionate share of income to housing, and limits spending in areas such as food, clothing, health care, and recreations.

This phenomenon holds true in Duarte. In 1990, there were 777 female-headed households in Duarte, accounting for 12.2 percent of the total number of households in the city. The mean family income for female-headed households was \$13,375 compared to \$23,156 for all families. 14.5% of the female-headed households are impoverished and 16.8% of female-headed households with children under age 18 has annual incomes below the poverty level. In addition, 10.0% of all families with children in Duarte had annual incomes below the poverty level.

Large Families

Housing affordability is one of a number of reasons families choose to live in Duarte, but an unfortunate consequence of the search for affordable housing is that many larger families are moving into smaller, older homes. The available options for relieving overcrowded living conditions include the construction of additional rooms on existing houses now occupied by overcrowded families. Other options include moving to larger units, something which may be unrealistic or unaffordable, particularly for families which cannot afford the related moving and relocation expenses.

Elderly and Handicapped Households

The 1990 Census indicated that 11% of Duarte's population was 62 years of age or older. The Census does not provide separate statistics for handicapped persons, but does indicate that 1,340 individuals have a disability that affects their ability to use public transportation. Of those persons indicating a public transit disability, 36% are 65 years of age or older. These persons may require special aids, such as wheelchair ramps, hand rails in bathrooms, and wider doorways which can add to housing costs.

Persons in Need of Emergency Shelter

Duarte is a suburban community located approximately 15 miles northeast of downtown Los Angeles where Los Angeles County's homeless population is concentrated. There are a number of smaller motels located along Huntington Drive which serve as transitional housing. There are no designated shelter providers within the City, though there are a number of shelters located in Pasadena and Pomona which serve the San Gabriel Valley.

Evaluation of Farmworker Households in the City

While there is a substantial amount of vacant land in the City, agricultural activities are largely limited to commercial nurseries utilizing easements and right-of-ways for landscaping plants. The majority of this open space is located in Federally-protected lands administered by the U.S. Department of the Interior. According to the 1990 U.S. Census, there were 41 households receiving farm employment income. However, there are no agricultural operations within or in the immediate area of the City.

Urbanization has resulted in the loss of agricultural land holdings in this part of Los Angeles County. Households identified in the census statistics were more likely to be employed in either commercial nurseries located in the area or in the maintenance/administration of the nearby National Forest. There are no housing units reserved for farmworker households in the City.

The nearest areas engaged in large scale agricultural production are in Riverside County (Chino, Corona/Norco, the Coachella Valley) and the western portion of San Bernardino County. There are no housing units available for exclusive use by the migrant farm workers in Los Angeles County or the City.

There were nine registered camps in 1986 providing employee housing for 215 employees in Los Angeles County, though none of these are located in the City of Duarte.

Employment Characteristics

Duarte's economic base is small compared to some of the surrounding cities in the study area. The Private Industry Council in 1984 identified 5,810 employed persons in Duarte. Of this number, 3,264 persons were employed in service occupations at 77 work sites. The next largest sectors in terms of employment were manufacturing with 1,144, retail trade with 867, and wholesale trade with 140 persons. Current information obtained from the City's Finance Department indicates there are currently 6,369 jobs in the City as of June, 1992. Table 3-32 summarizes employment statistics for the City.

TABLE 3-32

CITY OF DUARTE EMPLOYMENT CHARACTERISTICS

Employment Sector	1984		1990	
	Number	Percent	Number	Percent
Agriculture	93	1.66	86	1.4
Mining	0	0.00	0	0.0
Construction	35	0.07	39	.06
Manufacturing	1,144	19.70	1,449	22.8
Transportation	88	1.50	111	1.9
Wholesale Trade	140	2.40	214	3.5
Retail Trade	867	15.30	1,412	22.3
Financial	91	1.60	189	2.9
Services	3,264	56.10	2,281	35.9
Public Admin.	88	1.60	588	9.24
Nonclassified	0	0.00	0	0.0
Total	5,810	100	6,369	100.0

Source: Private Industry Council, 1976, 1984

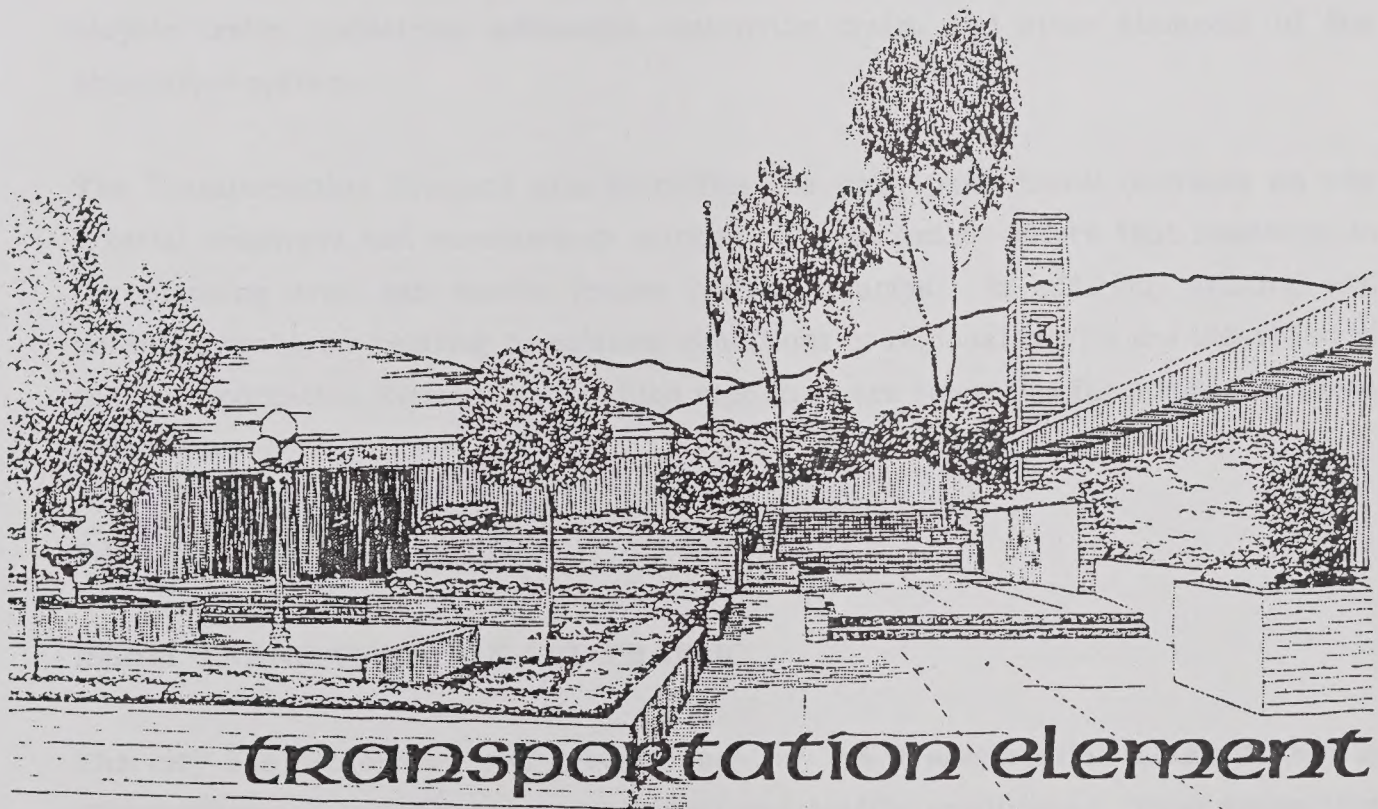
According to baseline projections used by SCAG in preparing the current growth forecast, job growth in Duarte and the east San Gabriel Valley is expected to increase by 43% in the year 2010. Los Angeles County, in comparison, is expected to gain 36% in the year 2010. This SCAG data indicates that employment opportunities will be greater in Duarte and the east San Gabriel Valley compared to the entire Los Angeles County job growth potential. Table 3-33 summarizes job growth projections for Duarte and the east San Gabriel Valley and Los Angeles County.

TABLE 3-33

**EMPLOYMENT OPPORTUNITIES
DUARTE AREA**

Employment Area	1980	1990	2010
San Gabriel Valley	165,400	168,425	241,187
L.A. County	3,940,100	4,053,000	5,497,002

Source: Southern California Association of Governments



transportation element



SECTION 4

TRANSPORTATION ELEMENT

4.1 INTRODUCTION

The Transportation Element is concerned with establishing policies and programs which strive to meet the existing and future transportation needs of Duarte.

State law requires every General Plan to contain a Transportation Element which, at a minimum, must identify the "general location and extent of existing and other public utilities and facilities, all correlated with the Land Use Element of the General Plan." The Transportation Element also must address the circulation improvements needed to relieve congestion, to provide public transit services, and to lessen long-term air quality impacts related to transportation (Section 653002(b)).

The Duarte Transportation Element establishes a hierarchy of roads with specific development standards described for each category of roadway. The Transportation Element is also concerned with parking, public transit, railroads, truck routes, bicycle trails, pedestrian walkways, equestrian trails, and other elements of the circulation system.

The Transportation Element also identifies the daily peak travel demands on key arterial roadways and recommends mitigation measures to ensure that roadways in the planning area can handle future traffic volumes. In addition, existing and potential problems relating to existing conditions or regional traffic are identified in the Transportation Element background report, as are strategies for mitigating these problems.

4.2 GOALS AND POLICIES

ISSUE: TRANSPORTATION AND TRAFFIC

The city has established one general goal for the Transportation Element that is directed toward improving transportation and traffic conditions. Other supporting policies also advocate the continued development of a regional mass transit system. Finally, there are a number of policies to promote local mitigation measures to reduce traffic and improve circulation citywide.

Goal 1:

To achieve an effective, efficient, and environmentally sound system of transit and transportation through improved traffic flow control measures, regional transportation planning, street development and improvement, and improved planning in new development.

Policies:

- 1.1 Develop, implement, and refine local east/west traffic flow elements to allow traffic to move through and within Duarte in an expeditious manner.

Implementation: Work with Monrovia and Irwindale and Azusa to develop methods of improving traffic flow on Huntington Drive.

Implementation: Monitor traffic on Royal Oaks Drive and Central Avenue and mitigate adverse traffic impacts.

- 1.2 Implement the street and public transit plan provided for in the Transportation Element to meet the needs of the citizens.

Implementation: Evaluate roadways that are not constructed to General Plan standards and program improvement into the city's capital improvements program (CIP).

- 1.3 Evaluate the traffic impacts from new development and require developers to employ any appropriate mitigation measures which will be effective in reducing traffic.

Implementation: Traffic impacts from proposed developments should be analyzed and any significant adverse impacts mitigated in accordance with the California Environmental Quality Act.

- 1.4 Discourage through traffic on local streets which are located in residential neighborhoods.

Implementation: Establish an acceptable level of service on residential streets. If these standards are exceeded, traffic reduction devices shall be installed.

Implementation: Strictly enforce posted speed limits in the residential neighborhoods.

- 1.5 Restrict heavy duty truck through traffic to arterial roadways in the city.

Implementation: Post signs indicating arterial roadways that are designated truck routes.

- 1.6 Support the development of a regional mass transit system as provided for in Proposition A.

Implementation: Participate in the planning undertaken by the Los Angeles County Transportation Commission (LACTC). Continue to support and operate the City of Duarte transit system.

- 1.7 Promote the linking of local public transit routes with that of adjacent cities.

Implementation: The city should continue to cooperate with surrounding cities, the Southern California Rapid Transit District, and the Foothill Transit District in developing schedules for the City of Duarte Transit System.

- 1.8 Evaluate traffic impacts from adjacent cities' existing conditions and new developments, and work with these cities to develop mitigation measures which will improve traffic flow within Duarte.

Implementation: Traffic impacts from proposed developments should be thoroughly evaluated as part of the environmental (CEQA) review process.

- 1.9 Provide street lighting facilities on local streets, pedestrian crossings, bike areas, and parks.

Implementation: The city should conduct a nighttime survey of streets in the city to identify any areas that are deficient in lighting.

- 1.10 Ensure that new development incorporates measures into the project design which promotes the use of alternate modes of transit or public transit.

Implementation: A major development in the city should provide areas for bike racks and bus stops and shelters.

4.3 CIRCULATION PLAN

4.3.1 ROADWAY STANDARDS

This section of the transportation element establishes roadway classifications and standards. The roadway classification system for the Duarte General Plan consists of four roadway categories: (1) freeway; (2) arterial; (3) collector; and (4) local. Appropriate standards for each category are described below. Exhibit 4-1 illustrates the circulation system for the City of Duarte as provided in this transportation element. Conceptual cross-sections of each roadway category are provided in Exhibit 4-2.

Freeway

This category applies to I-210 which traverses the city. I-210 is a controlled-access, divided facility running in an east/west direction. Eight lanes are provided on this roadway (four in each direction) plus auxiliary lanes. Approximately 130,000 to 140,000 vehicles per day travel on I-210. Interchanges are provided at Mountain Avenue, Buena Vista Street, and Mount Olive Drive. A second freeway, I-605, terminates south of the city.

Arterial Roadways

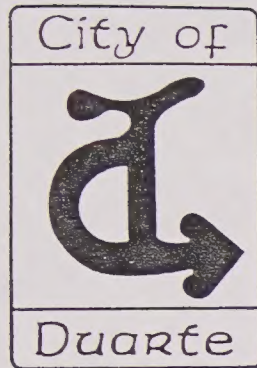
The primary function of an arterial roadway is to provide for regional, subregional, and intercity travel. Through traffic accounts for a substantial portion of the total traffic volumes on this type of roadway. Arterial roadways generally consist of four travel lanes (two in each direction) with a center left-turn lane or a median dividing the travel lanes. Street widths for this roadway vary from 60 feet up to 80 feet, depending on whether on-street parking is permitted. Right-of-way widths range from 80 to 108 feet. Roadways in this category include Duarte Road, Buena Vista Street, Mountain Avenue, Highland Avenue, and Huntington Drive.

Collector Streets

A collector street is designed to carry traffic from local streets to the arterial roadway network. Vehicles utilize collector streets to move to the arterial roadways carrying intercity or through traffic. This category of roadway generally consists of two travel lanes, though additional lanes may be provided. Right-of-way width for this category of roadway is generally 60 feet and the pavement width ranges from 32 to 52 feet, depending on whether on-street parking is permitted. These roadways in the city designated as collector streets include Royal Oaks Drive, Bradbourne Avenue, Mount Olive Drive, Central Avenue, and Las Lomas Road.

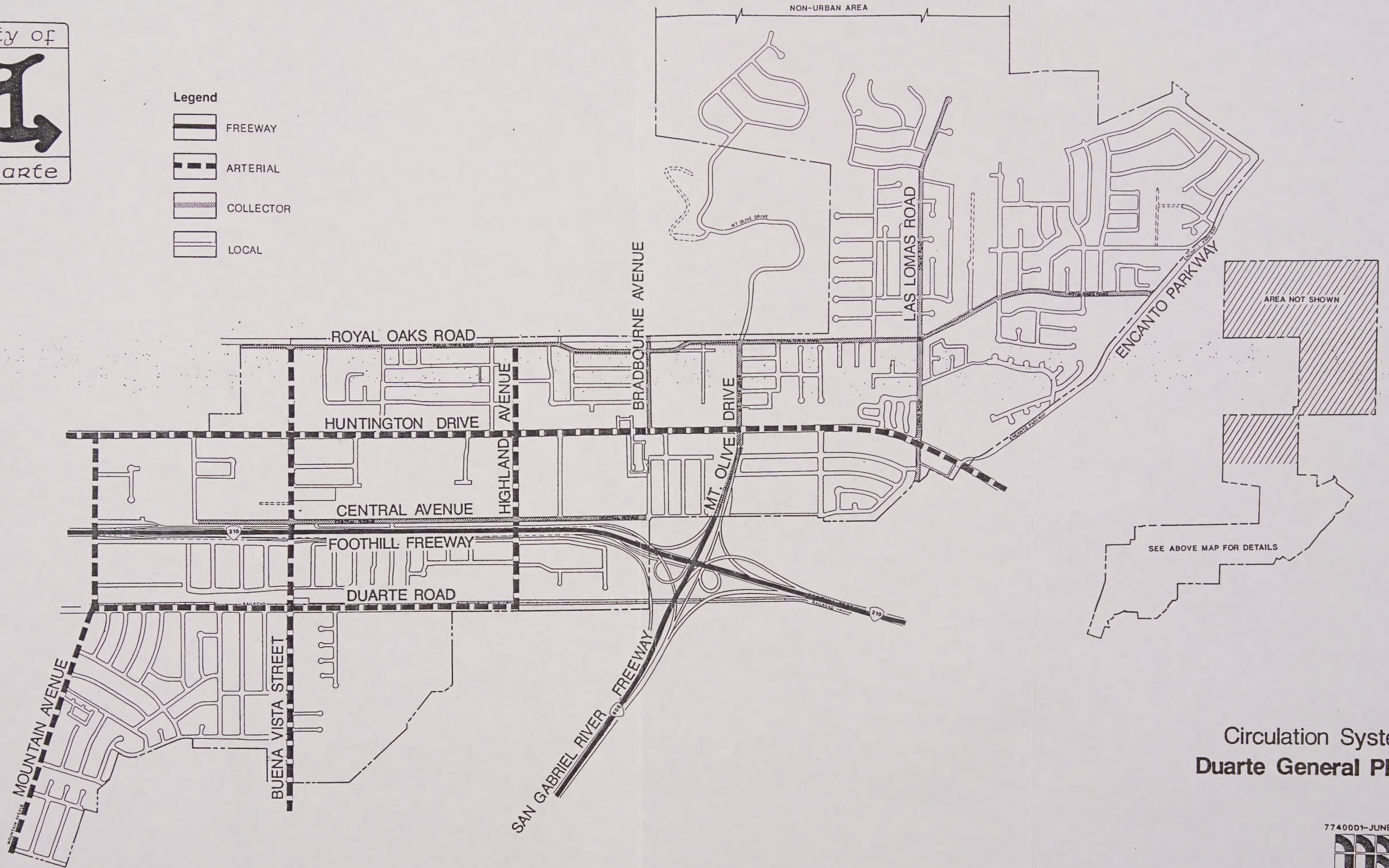
Local Streets

Local streets are designed to provide direct access to individual properties not served by arterial and collector roadways. These roads include all of the streets in the city not classified as arterials or collectors. These roads generally consist of two



Legend

- FREEWAY
- ARTERIAL
- COLLECTOR
- LOCAL

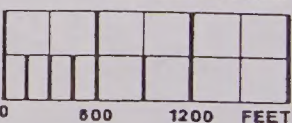


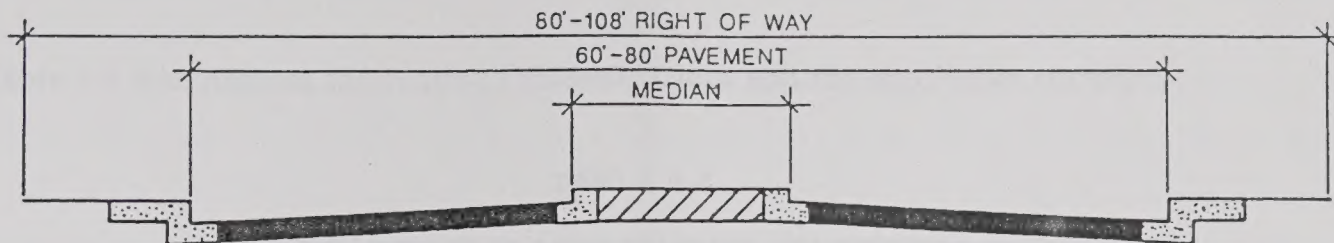
Circulation System
Duarte General Plan

7740001-JUNE 1989

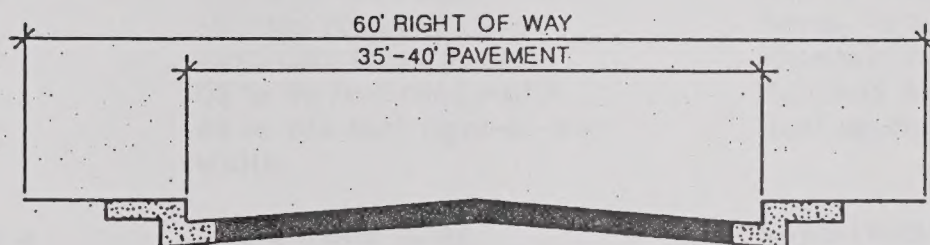


Michael Brandman Associates

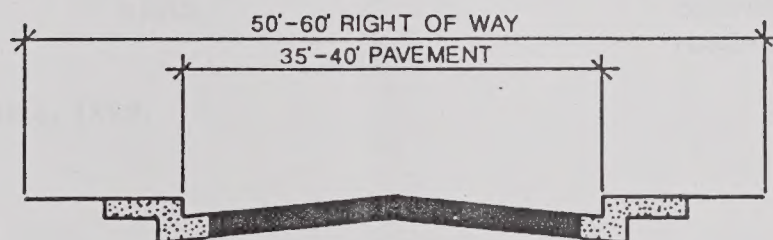




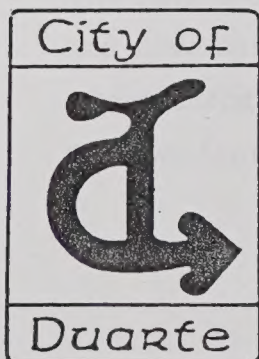
Arterial Roadway



Collector Streets



Local Streets



Conceptional Roadway Cross-sections Duarte General Plan

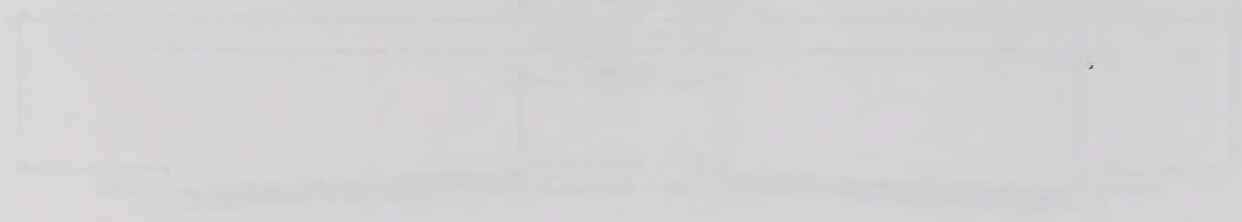


Figure 1



Figure 2



Figure 3



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travel lanes with parking permitted on one or both sides. Local streets generally have a right-of-way width of 50 to 60 feet and a pavement width of 35 to 40 feet.

Table 4-1 summarizes the roadway classifications and the applicable standards.

TABLE 4-1
ROADWAY CLASSIFICATION STANDARDS

<u>Roadway Classification</u>	<u>Standards</u>	<u>Facilities</u>
Freeway	Controlled access Divided roadway Eight lanes	I-210 I-605
Arterial	4 to 6 travel lanes Divided roadway Left-turn lanes/pockets 60 to 80 feet road width 80 to 108 feet right-of-way width	Duarte Road Buena Vista Street Mountain Avenue Highland Avenue Huntington Drive
Collector Streets	2 to 4 travel lanes Undivided road 32-to 52-foot road width 60-foot right-of-way width	Royal Oaks Drive Bradbourne Avenue Mount Olive Drive Central Avenue Las Lomas Road
Local Streets	Two travel lanes 36- to 40-foot road width 50- to 60-foot right-of-way width	All remaining streets in Duarte not other- wise classified as collector or arterial roadways

Source: City of Duarte, 1989.

4.3.2 IMPLICATIONS OF LAND USE POLICY ON TRANSPORTATION SYSTEM

The land use plan, when implemented, will not represent a major change in land use and development patterns in the city overall. The plan focuses instead on parcels where change is likely due to existing underutilization, improved access or visibility, or other factors which serve as a catalyst for change.

To assess the effect of the General Plan land use policy on traffic, it was first necessary to obtain the background traffic projections for each major area of the city. This information is documented in the background section of this element. The next step was to determine the projected traffic from the areas where the land use is proposed to be changed or modified. Where areas are either vacant or underutilized, the traffic projections indicate the more intense use. This approach is the most conservative approach from a traffic analysis point of view.

Table 4-2 indicates the traffic generating factors used in projecting the traffic impacts resulting from the implementation of land use policy.

TABLE 4-2
TRIP GENERATION

<u>Land Use</u>	<u>Trip Rate</u>	<u>Per</u>
Single-Family Housing	10.0	Unit
Multiple-Family Housing	5.4	Unit
Retirement Facility	3.3	Unit
Regional Shopping Center	296.0	1,000 SF
Community Shopping Center	71.0	1,000 SF
Neighborhood Shopping Center	117.0	1,000 SF
Convenience Market	553.0	1,000 SF
Commercial Strip Business	21.3	1,000 SF
Commercial Office	22.7	1,000 SF
Medical Office	90.5	1,000 SF
Government Office	68.9	1,000 SF
Industrial Park	7.3	1,000 SF
Quality Restaurant	56.3	1,000 SF
Fast Food Restaurant	652.0	1,000 SF
Bank	169.0	1,000 SF
Hospital	14.4	Bed
Auto Dealership	44.3	1,000 SF

Source: City of Duarte, 1989.

The major new traffic generators within the city will be the new commercial center at the northwest corner of Buena Vista and Huntington Drive, the commercial use at the southwest corner of Mountain and Evergreen, and the auto center on Central between Buena Vista and Mountain. In analyzing the traffic effect, it is necessary to assign the traffic to the major carriers. A certain amount of traffic will be internal traffic, particularly in the residential area. In the commercial traffic, a certain amount of the traffic serving the commercial centers already uses the street in the normal course of travel. In assigning traffic, the following assumptions were made:

- New residential traffic will follow existing traffic pattern.
- Sixty percent of the new residential traffic is trips within the city, and as to and from school, to and from shopping, neighbor-to-neighbor, etc.
- Thirty-five percent of the traffic going to and from the commercial centers already is using the streets.
- Ninety percent of the traffic to and from the auto center is new traffic and is regional traffic.
- Ninety percent of the traffic to and from the Conrac site (southeast corner of Evergreen and Mountain) is regional traffic.

Table 4-3 indicates the existing and proposed traffic on the major streets with level of service. The projections are based upon assigning the expected traffic increase to the existing background traffic. No allocation was made for an increase in background traffic.

TABLE 4-3
EXISTING AND PROJECTED TRAFFIC VOLUMES

<u>Location</u>	<u>Existing 24-Hour Volume</u>		<u>Projected 24-Hour Volume</u>	
	<u>N or E</u>	<u>S or W</u>	<u>N or E</u>	<u>S or W</u>
Buena Vista Street at				
Southern City Limits	2,782	2,679	3,167	3,050
Duarte Road	4,117	7,857	4,687	8,945
Evergreen	8,102	11,758	9,224	13,387
Freeway	8,398	6,296	10,770	8,668
Central	6,289	4,853	8,661	7,225
Huntington	9,812	6,776	10,669	7,633
Royal Oaks	3,865	1,796	4,832	2,703

TABLE 4-3 (continued)

<u>Existing 24-Hour Volume</u>		<u>Projected 24-Hour Volume</u>		
<u>Location</u>	<u>N or E</u>	<u>S or W</u>	<u>N or E</u>	<u>S or W</u>
Central Avenue at Mountain	--	9,338	--	11,710
Buena Vista	1,428	8,457	2,578	9,607
Highland	2,434	3,205	2,677	3,526
Crestfield Drive at Huntington	2,648	2,520	2,913	2,772
Duarte Road at Mountain	5,310	6,949	5,841	7,643
Highland Avenue at Duarte	3,872	4,728	4,259	5,201
Business Center		4,100	--	4,500
Central	6,006	3,940	4,952	3,137
Huntington	4,262	2,447	4,952	3,137
Huntington Drive at Mountain	14,488	16,138	16,875	18,800
Buena Vista	11,757	12,105	13,696	14,102
Highland	13,139	13,531	15,306	15,763
Mt. Olive	12,024	10,805	14,007	12,587
Crestfield	14,058	13,043	16,377	15,194
Las Lomas	8,769	8,370	10,215	9,751
Las Lomas Road at Huntington	2,296	5,227	2,537	5,775
Royal Oaks	3,881	1,498	4,228	1,655
Mt. Olive Drive at Huntington	15,749	7,022	17,401	7,759
Royal Oaks	6,805	1,861	7,519	2,056
Mountain Avenue at Duarte	5,196	6,401	5,741	7,072
Evergreen	2,806	--	6,555	--
Central	9,655	--	10,668	--
Huntington	9,647	--	10,659	--
Royal Oaks Drive at Buena Vista	5,355	3,604	5,917	3,982
Mt. Olive	3,849	3,912	4,253	4,322
Las Lomas	3,778	3,342	4,174	3,693
Greenbank	3,349	2,794	3,700	3,087
Royal Oaks Drive between Miltonwood and Bradbourne	3,691	3,194	4,078	3,529

Source: City of Duarte, 1989.

4.3.3 LEVELS OF SERVICES

A roadway's ability to handle current traffic loads can be described in terms of level of service (LOS). The LOS is the ratio of a road's design capacity to the existing traffic volumes. For example, a road with a design capacity of 24,000 vehicles per day (vpd) carrying 20,000 vpd has an LOS ratio of 0.83. Ratio ranges can be used to describe actual traffic operating conditions as outlined in Table 4-4. A ratio of 0.83 corresponds to LOS D, which is characterized by unstable traffic flows.

TABLE 4-4
INTERSECTION LEVEL OF SERVICE DEFINITIONS^a

<u>LOS</u>	<u>Interpretation</u>	<u>V/C Ratio^b</u>
A,B	Uncongested operations; all vehicles clear in a single signal cycle	0.00-0.70
C	Light congestion; occasional backups on critical approaches	0.71-0.80
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	0.81-0.90
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movement.	0.91-1.00
F	Total Breakdown with stop-and-go operation	1.01+

a Source: Highway Capacity Manual, 1985.

b Volume/level of service E capacity.

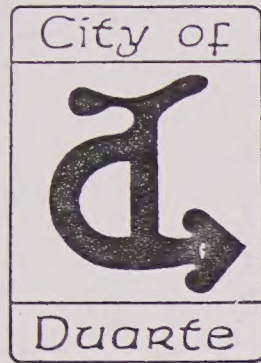
The LOS can be calculated if the design capacity for average daily traffic (ADT) and the existing traffic volumes (in ADT) are known. This information was obtained from City of Duarte Public Works Department which provided both peak hour and 24-hour volumes for selected roadway segments.

The projected LOS for key intersections and roadway segments are compared to the existing LOS for each one. Exhibit 4-3 indicates the location of each intersection and roadway segment analyzed.

TABLE 4-5
LEVELS OF SERVICE

<u>Location</u>	<u>Existing LOS</u>	<u>Proposed LOS</u>
Huntington Drive at		
Las Lomas Road	A	A
Mt. Olive Drive	C	D
Highland Avenue	C	D
Buena Vista Street	D	D
Mountain Avenue	C	D
Duarte Road at		
Buena Vista Street	C	C
Mountain Avenue	C	C
Buena Vista Street at		
Central Avenue	C	D
Central Avenue at		
Mountain Avenue	C	D
I-210 Offramp at		
Buena Vista Street	C	D
Mountain Avenue	B	D
Huntington Drive		
east of Las Lomas Road	A	A
at Las Lomas Rd to Mt. Olive	B	C
at Mt. Olive to Highland	C	D
at Highland to Buena Vista	C	D
at Buena Vista to Mountain	C	D
Duarte Road at		
Highland to Buena Vista	A	A
Buena Vista to Mountain	A	A
I-210 to Huntington Dr.	C	C
Mountain Avenue at		
I-210 to Huntington Drive	B	C

Source: City of Duarte, 1989.



Legend

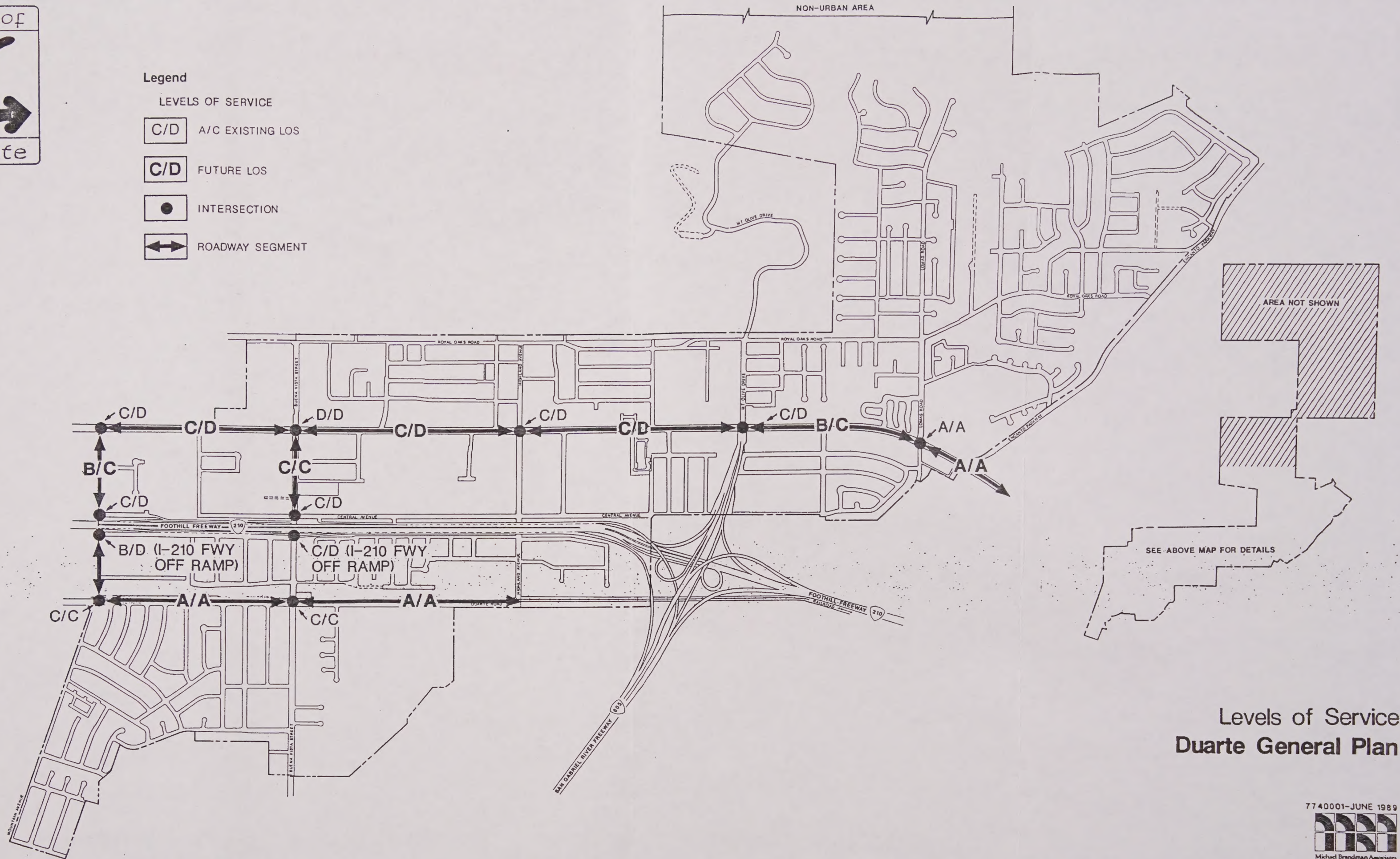
LEVELS OF SERVICE

C/D A/C EXISTING LOS

C/D FUTURE LOS

● INTERSECTION

↔ ROADWAY SEGMENT



Levels of Service
Duarte General Plan

7740001-JUNE 1989



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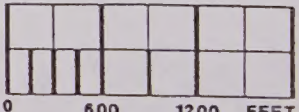


Exhibit 4-3



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8. [illegible]
9. [illegible]
10. [illegible]



The LOS analysis, summarized in Table 4-5 and illustrated in Exhibit 4-3, indicates that the development possible with the implementation of the general plan land use policy will affect a number of key intersections and roadway segments along Huntington Drive. The LOS (refer to Table 4-4 for LOS definition) for a number of key intersections along this roadway, including the intersections at Mountain Avenue, Buena Vista Street, Highland Avenue, and Mt. Olive Drive, will drop from LOS C to LOS D. In addition, the LOS for that portion of Huntington Drive between Mountain Avenue and Mt. Olive Drive will experience a decline from LOS D to LOS C, while the segment between Las Lomas Road and Mt. Olive will decline from LOS B to LOS C.

TRANSPORTATION ELEMENT BACKGROUND REPORT

4.4 INTRODUCTION

This section of the transportation element focuses on the existing transportation system in the city and present levels of service on major roadways that serve the community. This section also describes the existing public transportation services in Duarte. Finally, other existing major transportation and communication links that serve the community are described, including the railroad, freeway, and major utilities transmission links.

4.5 EXISTING CIRCULATION

4.5.1 EXISTING ROADWAY SYSTEM

Regional vehicular access to Duarte is provided by I-210 which traverses the city in an east to west direction and I-605 which links with I-210 at a full interchange immediately southeast of the city. Direct local access to the freeways are provided by offramps/onramps located at Mountain Avenue, Buena Vista Street, and Mount Olive Drive.

I-210 effectively divides Duarte into two north/south segments. Direct north/south access is restricted by the freeway right-of-way with underpasses located at Mountain Avenue, Buena Vista Street, and Highland Avenue providing the only north/south roadway linkage. As a result, these three roadways are the major north/south arterials in the city.

Major east/west access in the city is provided by Huntington Drive, a major arterial with four travel lanes, left-turn pockets, and parking on both sides. Secondary east to west access across the city is provided by Royal Oaks Drive and Central Avenue in the north and Duarte Road in the south.

The major source of traffic problems in the city occur at the peak hours on the east/west arterials and collector streets. As Huntington Drive congestion increases, a spill over effect occurs along Royal Oaks Drive and Central Avenue. The city should consider monitoring these streets on an ongoing basis and implement mitigation measures where appropriate.

Roadways within cities generally are categorized according to function, design, and traffic load capacity. These classifications may vary somewhat from city to city, though they generally have more in common than differences. The City of Duarte established a street classification system which conforms to roadway standards established by the Los Angeles County Road Department. The classification system describes the categories of roadways and includes specific design standards, right-of-way width, pavement width, number of lanes, and other improvements. In general, the roadways are placed into one of three categories according to their function and include local roads, collection roads, and arterial roads. Local roadways are designed to provide direct access to individual parcels and generally have two travel lanes and permit parking on both sides. Collector roadways may have two to four travel lanes and are designed to carry traffic from local streets to arterial roads. Finally, arterial roads generally have four or more travel lanes and accommodate both through traffic and vehicles moving of collectors. Collector and arterial roadways serving the city are described in Table 4-6.

TABLE 4-6

DESCRIPTION OF MAJOR ROADWAYS

<u>Street</u>	<u>Number of Lanes</u>	<u>Right-of-Way (feet)</u>	<u>Pavement Width (feet)</u>	<u>Restricted Parking</u>
<u>Collectors</u>				
Royal Oaks	2	58-60 (between Mountain and Buena Vista)	44-52	None
		60 (between Buena Vista and Highland)	41	None
		60 (Highland to Encanto)		None
Cotter	2	57-60 (reflects future street improvements)	42	None
Highland (between Huntington and Royal Oaks)	4	80	64	None

TABLE 4-6 (continued)

<u>Street</u>	<u>Number of Lanes</u>	<u>Right-of-Way (feet)</u>	<u>Pavement Width (feet)</u>	<u>Restricted Parking</u>
<u>Arterials</u>				
Bradbourne	2 (no lines)	50	32	None
Mt. Olive	2 NB and 1 SB	60	48	None
Central	2 (Crestfield to Bradbury)	60 Crestfield	39	Crestfield
	3 one-way offramp to Mountain	60 Random	40	Random
		60 Santo Domingo	36	Santo Domingo
		60 Highland	40	Highland
		56 Duncannon	40	Duncannon
	4 (Buena Vista)	90 Buena Vista	72	Buena Vista
		57 Broadland	40	Broadland
Las Lomas	4 (Huntington to Royal Oaks)	80	64	None
	2 (Royal Oaks to end)	56-60	40	None
Encanto Parkway	2	60	40	None
Duarte	4	98-100 (between Highland and Buena Vista)	75-80	None
		90-95 (between Buena Vista and Mountain)	70-75	None
Buena Vista (between Huntington Dr. and southerly city limit)	4	80	64	None
Huntington	4	108	73-78 (between Mt. Olive and Encanto)	No parking
			84 (between Mountain and Mt. Olive	Between 3 a.m. and 6 a.m.

TABLE 4-6 (continued)

<u>Street</u>	<u>Number of Lanes</u>	<u>Right-of-Way (feet)</u>	<u>Pavement Width (feet)</u>	<u>Restricted Parking</u>
Mountain (between Royal Oaks and Duarte Road)	4	82 (between Royal Oaks and Huntington)	60-64	None
	77-80 (between Huntington and Duarte Road)			
Huntington (between Huntington Dr. and Duarte Rd.	4	80	64	None

Source: City of Duarte, 1989.

4.5.2 EXISTING TRAFFIC VOLUMES

The 24-hour traffic counts were substituted for ADT counts to calculate the existing LOS for existing roadways in the city. Table 4-7 indicates the average daily volumes at key locations in the city.

TABLE 4-7
EXISTING TRAFFIC VOLUMES

<u>Location</u>	<u>24-Hour Volume</u>	
	<u>N or E</u>	<u>S or W</u>
Buena Vista Street at		
Southern city limits	2,782	2,679
Duarte Road	4,117	7,857
Evergreen	8,192	11,758
Freeway	8,398	6,296
Central	6,289	4,853
Huntington	9,812	6,776
Royal Oaks	3,865	1,796
Central Avenue at		
Mountain		9,338
Buena Vista	1,428	8,457
Highland	2,434	3,205

TABLE 4-7 (continued)

<u>Location</u>	<u>24-Hour Volume</u>	
	<u>N or E</u>	<u>S or W</u>
Crestfield Drive at Huntington	2,648	2,520
Duarte Road at Mountain	5,310	6,949
Highland Avenue at Buena Vista	6,949	5,665
Duarte	3,872	4,728
Business Center		4,100
Central	6,006	3,940
Huntington	4,262	2,447
Huntington Drive at Mountain	14,488	16,138
Buena Vista	11,757	12,105
Highland	13,139	13,531
Mt. Olive	12,024	10,805
Crestfield	14,058	13,043
Las Lomas	8,769	8,370
Las Lomas Road at Huntington	2,296	5,227
Royal Oaks	3,881	1,498
Mt. Olive Drive at Huntington	15,749	7,022
Royal Oaks	6,805	1,861
Mountain Avenue at Duarte	5,196	6,401
Evergreen	2,806	
Central	9,655	
Huntington	9,647	
Royal Oaks Drive at Buena Vista	5,355	3,604
Mt. Olive	3,849	3,912
Vineyard	6,756	3,275
Las Lomas	3,778	3,342
Greenbank	3,349	2,794
Royal Oaks Drive between Miltonwood and Bradbourne	3,691	3,194

Source: City of Duarte, 1989.

The LOS calculation is determined by using the 24-hour vehicle volumes which, as discussed above, are overestimates. The impact of these inflated counts on determining LOS are offset when considering the fact that the larger trucks will significantly reduce operating LOS on any given roadway segment. Table 4-8 indicates the LOS at key intersections and roadway segments in the city.

TABLE 4-8
LEVELS OF SERVICE

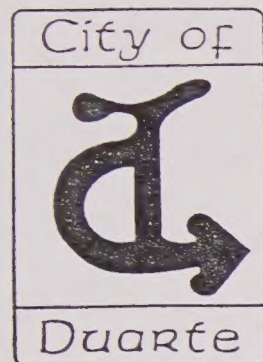
<u>Location</u>	<u>LOS</u>
Huntington Drive at Las Lomas Road	A
Mt. Olive Drive	C
Highland Avenue	C
Buena Vista Street	D
Mountain Avenue	C
Duarte Road at Buena Vista Street	C
Mountain Avenue	C
Buena Vista Street at Central Avenue	C
Central Avenue at Mountain Avenue	C
I-210 Offramp at Buena Vista Street	C
Mountain Avenue	B
Huntington Drive east of Las Lomas Road	A
Huntington Drive at Las Lomas Road to Mt. Olive	B
Mt. Olive to Highland	C
Highland to Buena Vista	C
Buena Vista to Mountain	C
Duarte Road at Highland to Buena Vista	A
Buena Vista to Mountain	A
Buena Vista at I-210 to Huntington Drive	C
Mountain Avenue at I-210 to Huntington Drive	B

Source: City of Duarte, 1989.

4.6 ALTERNATE MODES OF TRANSPORTATION

The AT&SF Railroad traverses the city in an east to west direction just north of Duarte Road. At the present time, the line is not available for commuters.

The city operates its own bus system within the incorporated limits of the city. The transit system travels on most arterial and collector roads and passengers can make direct connections with the regional public transit system. In addition, Duarte is served by the Southern California Rapid Transit District (RTD) which connects the city with the surrounding region. Exhibit 4-4 illustrates the existing service routes for both the city-operated transit system and the RTD.



Legend



RTD (LINE 187)



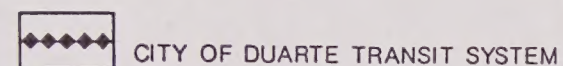
RTD (LINE 188)



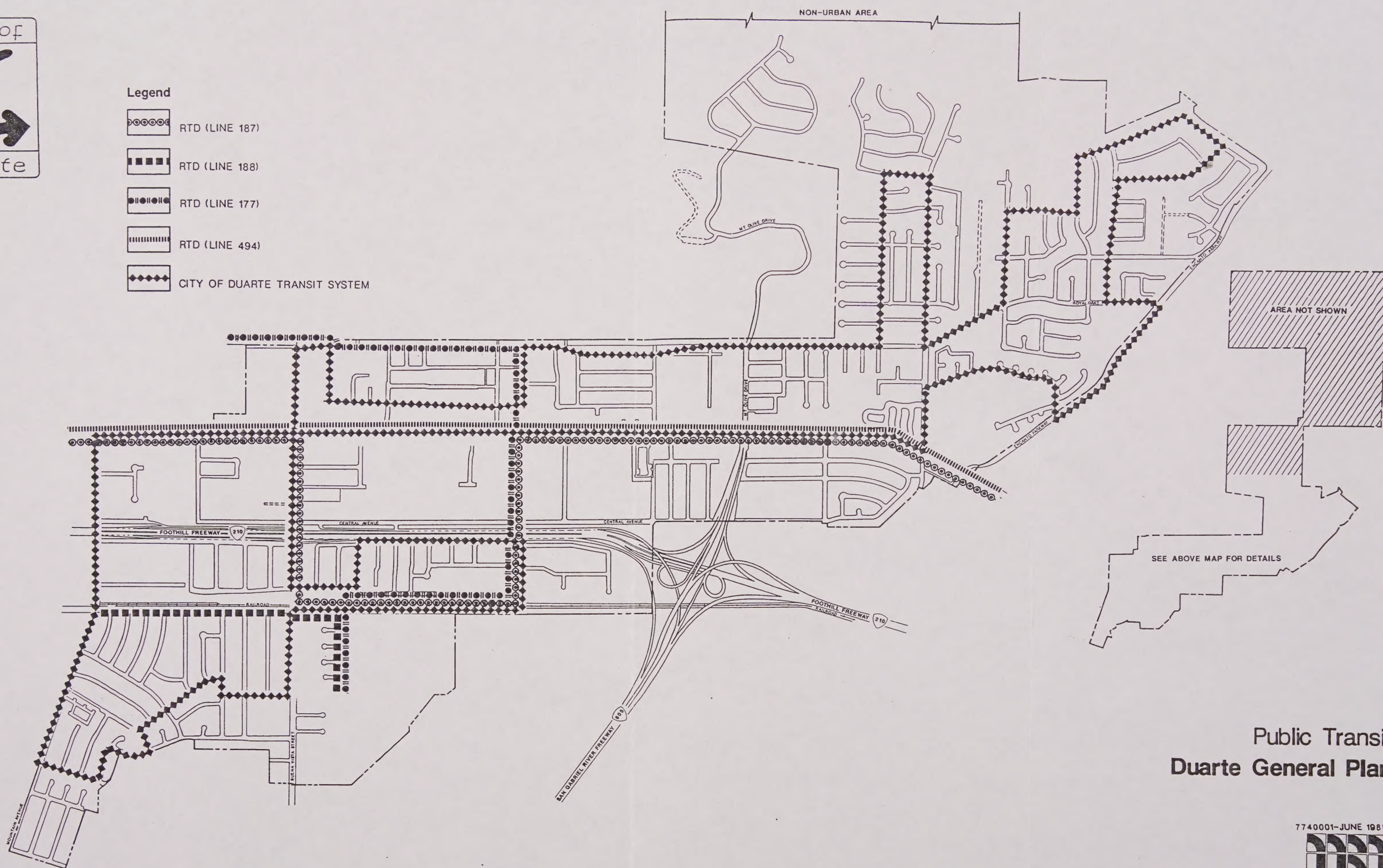
RTD (LINE 177)



RTD (LINE 494)



CITY OF DUARTE TRANSIT SYSTEM

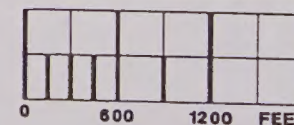
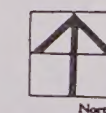


Public Transit
Duarte General Plan

7740001-JUNE 1989



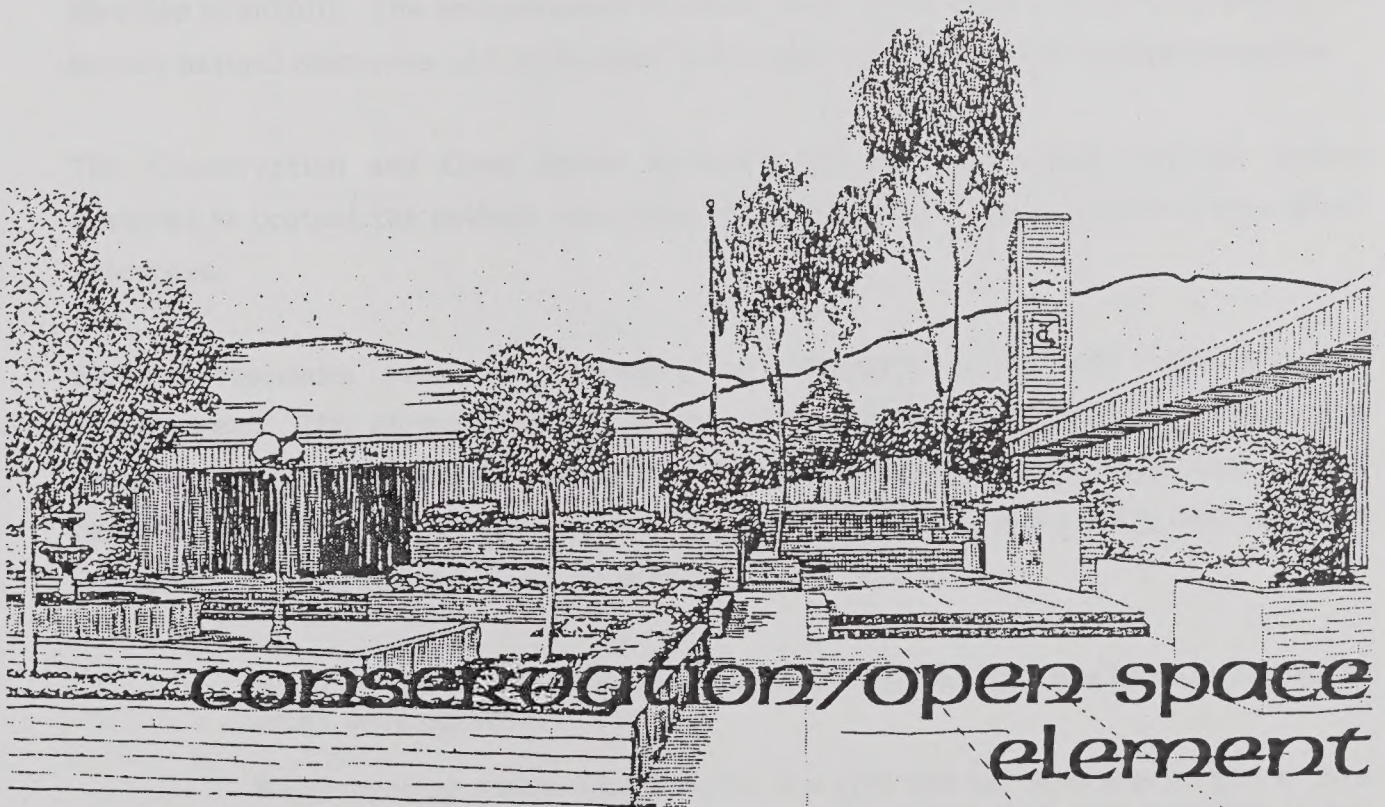
Michael Brandman Associates





UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D. C. 20240







SECTION 5
CONSERVATION AND OPEN SPACE ELEMENT

5.1 INTRODUCTION

The state requires that every general plan have an open space element (Section 65302(e)) that must include an inventory of private and public open space. In addition, the open space element must identify goals and policies for managing any open space areas, as well as specific measures to implement these goals and policies.

The purpose of the conservation and open space element is to guide and set a policy framework for the existing and future open space uses within the City of Duarte. Open space is intended to encourage and contribute to economic, social and physical health, safety, and welfare of the city's residents. Open space should provide a variety of amenities by adding aesthetic relief to developed areas in addition to providing areas for active and passive recreation.

The state also requires every general plan to have a conservation element (Section 65302(d)). The conservation element must serve to protect and maintain the state's natural resources and to prevent their wasteful exploitation and destruction.

The Conservation and Open Space element will also guide and establish policy designed to protect the natural environment including land, water, air, and ecological resources.

Natural resources available in Duarte are limited due to the mature urban environment. This element focuses on the remaining natural and cultural resources, including cultural resources important in the city's historic development and natural resources including water resources, ecological resources, and energy and resource conservation. The following are considered in this report:

- Much of the native natural environment of the city has been replaced by urban development.
- Water bearing sediments underlie the city and serve as a principal source of water. Efforts need to be taken to ensure that this resource is not contaminated or depleted.

- The city's air quality is generally low, as is the quality of the rest of the South Coast Air Basin (SCAB) airshed. The SCAQMD and SCAG intend to implement a strategy through which clean air standards will be met by the year 2010.
- Native vegetation and wildlife have been supplanted by other species of plants and animals introduced and maintained by humans, and include species commonly found in an urban setting. The only remaining wilderness areas are located in the northernmost portion of the city.
- The region has a long history of human occupation; the remaining cultural resources are limited to a number of historic buildings and sites located in the community.

5.2 GOALS AND POLICIES

5.2.1 ISSUE: PROTECTION OF NATURAL RESOURCES

The following goal and supporting policy recognize the importance of its commitment toward the continued support of the conservation efforts put forth by the federal government in the forest land area of the city.

Goal 1:

To protect the natural resources within the city limits.

Policies:

- 1.1 Continue to support the United States Department of Agriculture and their conservation efforts in the forest lands in north Duarte.

Implementation: Implement the General Plan land use policy which designates forest areas as open space.

5.2.2 ISSUE: ENVIRONMENTAL REVIEW

The following goal and policy supports the continued environmental review process of the city.

Goal 2:

To consider the environmental implications of new development in the city.

Policies:

- 2.1 Analyze all projects within the city which may have a harmful effect upon the environment by using the available environmental review process as set forth in the California Environmental Quality Act (CEQA) as it has been amended and the city's Environmental Review Guidelines.

Implementation: Review current environmental review process and city guidelines.

- 2.2 Minimize the aesthetic impacts of signs through the strict enforcement of the Municipal Sign Ordinance.

Implementation: Continued code enforcement.

5.2.3 ISSUE: IMPROVING AIR QUALITY

The following goal and policies recognize the importance of improving air quality in the city and supporting the SCAQMD's efforts in reducing air pollution in the region.

Goal 3:

To promote measures to improve regional air quality.

Policies:

- 3.1 Carefully review and monitor projects which would add to the current problem of air pollution and make an effort to find ways in which current emission levels can be reduced.

Implementation: Cooperate with the SCAQMD in the review and monitoring of projects.

- 3.2 Support the SCAQMD's efforts in reducing the level of air pollution in the southern California region.

Implementation: Comply with the Air Quality Management Plan (AQMP) prepared by the SCAQMD.

- 3.3 Emissions from all manufacturing and commercial firms shall meet the requirements of the SCAQMD.

Implementation: Cooperate with the SCAQMD in the enforcement of the AQMP and SCAQMD regulations.

5.2.4 ISSUE: SOLID WASTE DISPOSAL

The following goal and policies support recycling as a viable alternative over current methods of trash disposal.

Goal 4:

To prolong the life and safety of landfills and find an environmentally safe alternative means for the disposal of solid waste.

Policies:

- 4.1 To remove as much as possible from the waste stream, and, preferably, to reuse it and to continue to seek alternative means of trash disposal.

Implementation: Support ongoing recycling programs.

- 4.2 Promote the city's recycling program as a viable alternative to trash disposal.

Implementation: Advertise the current recycling program in the city's newsletter.

5.2.5 ISSUE: WATER RESOURCES

The following goal and policies recognize that the way to ensure that water resources are provided in the future is through conservation.

Goal 5:

To protect and maintain the local water supply to ensure that the city's growing demand for water can be met.

Policies:

- 5.1 Work to conserve current water supplies and seek new sources of water.
- 5.2 Encourage water conservation in residential, commercial, and industrial development.

Implementation: Examine water consumption impacts of new development in conjunction with environmental review.

- 5.3 Require the installation of water saving irrigation systems for all new development.

Implementation: Revise development code.

- 5.4 Require the use of drought-resistant trees and plant materials in all new landscaping.

Implementation: Revise development code.

5.2.6 ISSUE: PARKS AND RECREATION

The following goals and supporting policies focus on ensuring that open space is available and accessible to both existing and future residents. A number of policies emphasize the need to continue providing additional recreational open space and recreational programs.

Goal 6:

To develop enough park acreage to meet the needs of the population and upgrade existing facilities.

Policies:

- 6.1 The city should study the feasibility of acquiring land for a new park south of Huntington drive.

Implementation: Conduct a feasibility study for new park development as part of a master plan for parks in the city.

- 6.2 The city should construct a bridge to connect the Duarte Bike and Equestrian Trail with the San Gabriel River Trail.

Implementation: Program the construction of this bridge into the city's 5 year capital improvement program.

- 6.3 Coordinate circulation and recreation developments in Duarte with those planned for the Santa Fe Dam regional recreation area.

Implementation: Review development proposal of the Santa Fe Dam with Los Angeles County Department of Parks and Recreation.

- 6.4 Protect Duarte's natural foothill areas by maintaining low overall residential densities and by utilizing their potential for recreational and open space purposes.

Implementation: Implement the General Plan land use policy.

- 6.5 Provide recreation programs for all age groups, utilizing first those facilities now existing and developing new facilities as the need arises.

Implementation: Prepare and implement a parks master plan.

- 6.6 Establish neighborhood parks designed and located to conveniently serve the needs of various segments of the community.

Implementation: Prepare and implement a parks master plan.

Goal 7:

To provide parks throughout the city, on a pedestrian scale as much as possible. Neighborhood parks generally should have a one-half mile service radius.

Policies:

- 7.1 The multiple recreation uses for open space areas should be encouraged. For example, horseback trails entwined with pedestrian paths can be enjoyable for both parties. Trail markers will be used to point out interesting views and directions (e.g., the direction to the waterfall above Van Tassel Canyon).
- 7.2 Develop new city parks when and where this is possible to meet the future recreational needs of the community.
- 7.3 Expand and improve recreational facilities at existing parks within the city.
- 7.4 Promote the development of new neighborhood and recreation facilities, as appropriate, including parks of 4 acres or more to be used as satellite parks.

Implementation: Prepare and implement a master plan for new park development in the city.

5.2.7 ISSUE: HILLSIDE DEVELOPMENT

The following goal addresses urban development in the hillside areas in north Duarte. The supporting policy focuses on means to reduce adverse impacts from urbanization on the undeveloped areas.

Goal 8:

To ensure that any development in the mountain and hillside areas are sensitive to local environment.

Policies:

- 8.1 Maintain very low densities in the northernmost portion of the city not included in the national forest. Further development must be sensitive to the terrain and natural environment.

Implementation: Implement the General Plan land use policy. Implement the city's current hillside development ordinance.

5.2.8 ISSUE: WATERSHED PROTECTION

The following goal and policy is concerned with protecting the watersheds in the mountainous areas of north Duarte and the need to minimize erosion and other adverse impacts where development will occur.

Goal 9:

To protect the valuable watershed areas within and to the north of the urbanized areas.

Policies:

- 9.1 To preserve the characteristics of the mountains, river beds, and canyons and to protect the valuable watershed, grading of lots should be kept to a minimum. Streets should be carefully designed to reduce or eliminate the possibility of erosion in the hillside and mountainous areas.

Implementation: Implement the General Plan land use policy.
Implement the hillside development ordinance.

5.2.9 ISSUE: MAXIMIZING OPEN SPACE

The city can promote the presentation of open space by encouraging development that is sensitive to this resource. Land use planning must consider ways to maintain open space by encouraging development that more efficiently utilizes the land.

Goal 10:

To restrict future surface streets from cutting up areas of open space.

Policies:

- 10.1 Encourage the planned unit development approach to land use which will minimize streets and provide more open space or green belts.

Implementation: Implement the General Plan land use policy.

- 10.2 Discourage the extension of urban service into areas which are to remain open as open space. Streets and roadways should avoid large open areas as much as possible.

Implementation: Implement the General Plan land use policy.

- 10.3 Maintain open space areas around noise generators to buffer the noise impacts on noise sensitive uses including schools and residential areas.

Implementation: Consider open space as a noise mitigation device in the review of future development proposals.

- 10.4 To protect the public health, safety, and welfare, the city should designate open space where there is danger of flood, fire, or earthquake, unless these risks can be adequately mitigated.

Implementation: Consider open space as a device for hazards mitigation in the review of future development.

5.3 OPEN SPACE

Open space should be obtained and maintained to provide many of the qualities which we demand in our urban life. It provides watershed, erosion protection, land for recreation, a contrast to our urban environment, wildlife habitats, and a method to control expansion of urban developments.

The development and implementation of the open space plan involves the participation of the water company, the fire department, the flood control district, property owners, the planning department, city residents, and the regional planning department.

The amenities of open space, whether they be visual, better air, better water, monetary profit, food protection, recreation, or expansion control should be weighed and considered in the most beneficial light to serve the entire community.

The mountain area south of the Angeles National Forest which is within the city's boundaries and the mountains within the National Forest are an immensely important and valuable watershed. Duarte is serviced by wells primarily supplied by natural percolation in these wilderness areas. At the same time, there is an ever present danger from wildfires in these mountainous areas.

There are many areas which are considered fire, flood, and seismic danger areas within the city boundaries. Since 1962, it has become increasingly evident that the dangers of erosion and fire make development in steep and relatively inaccessible mountain areas extremely costly, risky, and generally unacceptable.

Development of the open mountain areas can destroy Duarte's best scenic asset. The mountain backdrop is Duarte's great scenic asset, the feature many residents think of when asked what they like about Duarte. The low density development of the open space, as provided for in this General Plan, will reduce the amount of urban development in the hillside areas.

5.3.1 OPEN SPACE STANDARDS

Open Space Designations/Standards

The Land Use Element provides for two land use designations which will provide or promote the preservation of open space. These include:

- Open Space. This land use category ensures that open space is preserved for recreation and resource protection. This designation applies to all of the city parks, the Rancho Duarte Golf Course, a utilities easement north of Royal Oaks Drive, and all of the city land area within the boundaries of the Angeles National Forest. Approximately 2,317 acres of land in the city are designated open space.
- Planned Development/Specific Plan Overlay. This description applies to a single land holding presently occupied by Westminster Gardens and a number of hillside areas. This land use designation promotes the development of projects that are sensitive to open space. This type of development may include zero lot line, planned unit developments, or other types of mechanisms that focus development in areas where it is appropriate while reserving other areas for permanent open space. This designation consists of the "hillside overlay" and the Westminster Gardens overlay.

The planned development overlay designation consists of the following standards:

- Density shall not exceed one family per 2 acres.
- The watershed character shall be maintained.
- Grading shall be kept to a minimum.
- Circulation shall be designed to incorporate and improve existing fire roads.
- The natural drainage pattern shall be maintained insofar as practicable.
- Grading for streets and lots shall be especially designed to avoid disfiguration of the mountain view.

- Streets shall not exceed 12-1/2 percent grade (1:8 ratio).
- Streets shall have the standard paving cross-section of 30 feet with a minimum of 40 foot right-of-way as required by state law, with on-street parking prohibited. Sidewalks can be omitted in this density of development.
- Debris basins where required shall be constructed as an integral part of subdivisions.

5.4 NATURAL RESOURCES PROGRAM

The natural resources plan addresses three issue areas: air quality, water resources, and plant and wildlife resources.

5.4.1 AIR QUALITY

Duarte is located in the Southern California Air Basin (SCAB) and is regulated by the South Coast Air Quality Management District (SCAQMD). The Conservation Element goals and policies require the city to continue working with the SCAQMD to enforce regional air quality plans and policies. The SCAQMD has been responsible for regulating pollutant emissions in the SCAB and has adopted an AQMP pursuant to the requirements of the Federal Clean Air Act.

The plan, titled "Long-Range Strategies for Improving Air Quality," has established regulatory programs designed to reduce pollutant emissions from stationary sources (industry and commercial businesses) and mobile sources (cars, trucks, construction vehicles, etc.).

New industries establishing businesses in the city will have to comply with the AQMP and will need to install new pollution control devices, as well as comply with strict emission restrictions. Cleaner burning fuels, such as natural gas and methanol, are encouraged by the plan. Duarte can insure that industries comply with SCAQMD requirements through a business license issuance process.

A significant proportion of pollutant emissions in the basin are emitted by motor vehicles. The SCAQMD recommends a reducing in the total miles traveled that will reduce the level of pollutants emitted in the air. The AQMP recommends several

options to be used to reduce the level of vehicle emissions. These options include the use of public transportation, the establishment of transportation management systems, and staggered work hours.

5.4.2 WATER RESOURCES

Duarte relies on local groundwater basins to provide much of the city's water supply. The goals and policies in this element recommend a water conservation program to reduce water consumption in the city. This program will require new landscaping standards set by the city that include drought resistant trees and plants for all new landscaping projects. The city may, also, encourage water-saving irrigation systems. The city will cooperate with other regional water conservation programs to the greatest extent possible.

5.4.3 VEGETATION AND WILDLIFE RESOURCES

The native landscape of Duarte, as noted before, has been radically altered by urbanization. What was once California prairie grassland has been paved, built upon, and planted with ornamental trees, shrubs, and grasses. The native wildlife population has been substantially reduced as a result of the urbanization as well. A large portion of the city includes wilderness areas within the Angeles National Forest. A number of goals and policies support ongoing efforts of the United States Department of Agriculture (USDA) to properly manage and conserve important natural resources in this area.

5.5 CULTURAL RESOURCES PROGRAM

The background report identifies a number of historic sites and structures in the city that have some historic significance to the community. In addition, the city may request the assistance of interested community volunteers or students in conducting a citywide historic survey.

5.6 OPEN SPACE ISSUES/PARKS AND RECREATION

This section of the City of Duarte General Plan Background Report serves as the technical appendix to the Conservation and Open Space Element. State law requires that open space elements focus on land used for natural resource preservation, scenic areas, open space used for groundwater recharge and watershed protection, agricultural land, wilderness areas set aside for habitat protection, and open space used for recreation.

Most of the land designated as open space is physically unsuitable for development due to the rugged or steep terrain. River beds and debris basins also provide additional open space due to their physical and topographical conditions. There are other areas within the city's boundaries that are undeveloped due to existing land use controls. These areas include parks, setbacks of dwellings, national forest lands, utility easements, school fields, and land zoned for lower density residential development. This background report divides the discussion of open space into two parts: the first focuses on park facilities in the city and the second part deals with other open space in the city.

5.6.1 DESCRIPTION OF EXISTING FACILITIES

The Parks and Recreation Department maintains parks and recreation facilities totaling approximately 75 acres. The following parks and recreation facilities are located in the City of Duarte.

- Bike Path. This 1.6-mile bike and equestrian trail is located in the northern portion of the city and extends from Buena Vista Street to Mount Olive Drive. This bike path consists of 9.96 acres.
- Town Center. A major recreational facility is located in the Civic Center/Town Center complex. Facilities include a fitness center with two pools, two racquetball courts, an exercise room, and locker and shower facilities. The Community Center is equipped with an auditorium, meeting room, arts and crafts room, and kitchen.
- Rancho Duarte Golf Course. This 18.55-acre public golf course is located at 1000 Los Lomas in the easternmost portion of the city. This facility consists of a nine-hole executive course and a restaurant.

- Valley View Park. This 1.38-acre satellite park is located at 205 Mel Canyon Road. Improvements provided at this park include playground equipment and, picnic area.
- Hacienda Park. This park consists of 1.64 acres and is located at 2695 Hacienda Drive. Improvements at this park include playground equipment and a picnic area.
- Andres Duarte Park. This 0.48-acre satellite park is located at 2200 Central Avenue. Improvements at this park include playground equipment and a picnic area.
- Third Street Park. This street park is located at 1625 Third Street and consists of 0.36 acres. Improvements include playground equipment and a picnic area.
- Beardslee Park. This 4.91-acre park is located at 2000 Buena Vista Street. Improvements include playground equipment, a picnic area, horseshoe pits, an amphitheatre, a soccer field, and restroom facilities.
- Aloysia Moore Park. This 0.8-acre park is located at 1100 Duarte Road. Facilities at this park include playground equipment and a picnic area.
- Sports Park. This facility is located at 1401 Central Avenue and consists of 12.25 acres. Improvements include three lighted softball fields, one lighted baseball field, six tennis courts (four lighted), a snack bar with restroom facilities, and a fitness course.
- Duarte Park. This 2.96-acre facility is located at 1344 Bloomdale Street. Improvements of this park include two lighted tennis courts, a lighted basketball court, playground equipment, a picnic area, and a multipurpose building and restrooms.
- Royal Oaks Park and Royal Oaks Park Extension. This park, located at 2627 and 2701 Royal Oak Drive, is divided by Las Lomas Road and has a total land area of 7.4 acres. Improvements at this park include playground equipment, a picnic area, two lighted tennis courts, two lighted basketball courts, a fitness course, and a multipurpose building with restrooms.
- Encanto Park. A 11.5-acre facility currently under construction, located on Encanto Parkway north of Huntington Drive. This park will feature playground equipment, volleyball and basketball courts, picnic areas, softball fields, and tennis courts.

The parks in the City of Duarte are classified as community parks, neighborhood parks and satellite parks. Neighborhood parks generally are larger than satellite parks and have a greater assortment of facilities, while community parks are intended to serve the entire community. Satellite parks are more passive in nature

with specialized facilities limited to picnic and playground areas. The existing recreational facilities are summarized below in Table 5-1 and their locations are indicated in Exhibit 5-1.

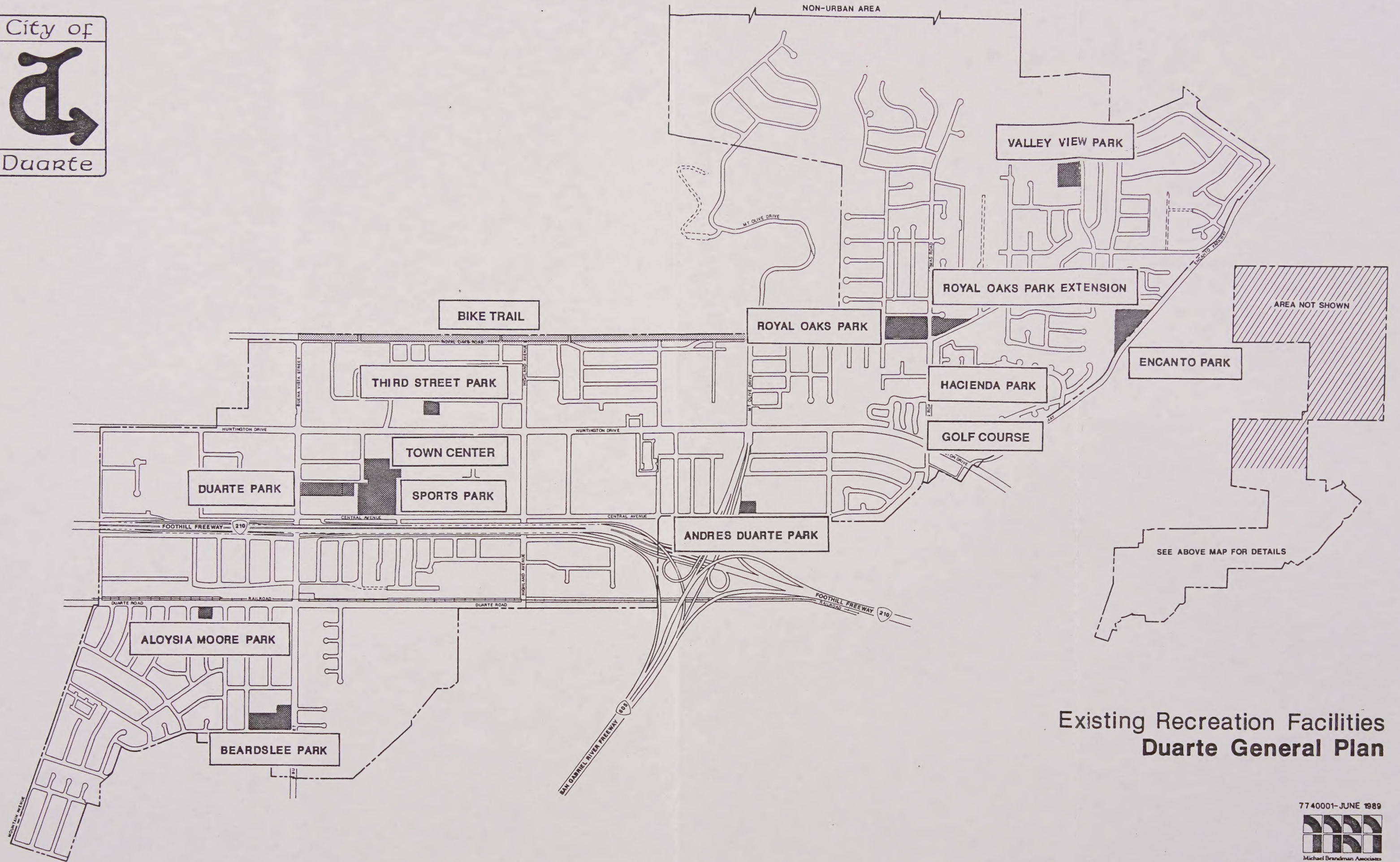
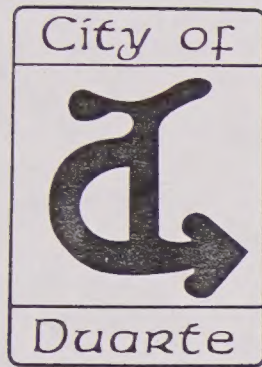
TABLE 5-1
INVENTORY OF PUBLIC PARKS

<u>Facility</u>	<u>Park Type</u>	<u>Area</u>
Rancho Duarte Golf Gourse	Community	18.55
Sports Park	Community	12.25
Bike and Equestrian Trail	Community	9.96
Duarte Park	Neighborhood	2.96
Royal Oaks Park and Royal Oaks Park Extension	Neighborhood	7.40
Valley View Park	Satellite	1.38
Hacienda Park	Satellite	1.64
Andres Duarte Park	Satellite	0.48
Third Street Park	Satellite	0.36
Beardslee Park	Satellite	4.91
Aloysia Park	Satellite	0.80
Encanto Park	Community	11.50
Towne Center	Community	2.49
Total Park Area		74.68

Source: City of Duarte.

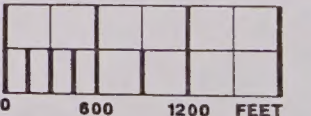
5.6.2 NEEDS ASSESSMENT

The National Parks and Recreation Association (NRPA) established standards indicating the amount of recreational open space that should be available for any given population. These standards indicate that at least 2.5 acres of parkland should be provided for every 1,000 persons living in the city. According to this criteria, Duarte would need approximately 53 acres of parkland to meet the recreation needs of the 21,000 persons living in the city. The city actually exceeds this standard as indicated in Table 5-2.



Existing Recreation Facilities
Duarte General Plan

7740001-JUNE 1989





UNITED STATES DEPARTMENT OF THE INTERIOR

BLM-100

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TABLE 5-2

PARK NEEDS ASSESSMENT

Existing Population (1988)	21,326 persons
Park Acreage Required to Meet NRPA Standards (2.5 acres per 1,000 persons)	53.25 acres
Existing Park Acreage	52.40 acres
Difference Between Existing Park Area and NRPA Standards	0.85 acre

Source: Michael Brandman Associates, Inc., 1989.

Another method of evaluating park needs involves a service area analysis. A park's service area is simply the geographic area in which the majority of the persons using a particular park live. The NRPA has identified general service area standards for each category of park. For example, the service area for smaller parks generally has a radius of less than one-quarter mile and the service area radius for neighborhood parks is generally between one-quarter and one-half mile.

A service area analysis must consider factors other than just radial distance from the park. Major man-made or natural barriers will affect the service area of any given park. A major roadway or freeway located near a park may discourage persons from using that facility even though they live nearby. For that reason, it is important to consider these barriers when examining park service areas.

The service areas of existing park facilities are shown in Exhibit 5-2 which reveals that most of the residential neighborhoods are within a service area of a park. Only the neighborhoods located in the extreme southern and northern portions of the city are outside the one-quarter or one-half mile service radius of a local park.

5.6.3 OTHER OPEN SPACE AREAS

The City of Duarte is fortunate to have a variety of open space uses other than park facilities. These include areas that are physically unsuitable for development, undevelopment due to land use controls, or as yet undeveloped but eligible for development. These open space areas contribute to recreational opportunities and quality of life as perceived in Duarte.

Approximately 2,251 acres of land is within the boundaries of the Angeles National Forest which is administered by the U.S. Forest Service. In addition, 35 acres of undeveloped vacant land are located in the urbanized portions of the city and are expected to be developed in the near term.

5.7 CONSERVATION ISSUES

The State of California requires every city and county to take steps to protect and preserve natural and cultural resources within the community. While the state's natural resources continue to dwindle, its population continues to grow at a phenomenal rate; consequently resource demand increases.

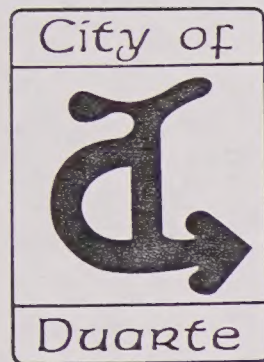
The background report will describe the natural and cultural resources of the city. The city's cultural resources include sites important in the city's historic development, as well as archaeological resources which may be present in the undeveloped areas. The discussion on natural resources will focus on air and water quality and energy and resource conservation.

The description of natural resources will focus on those resources that remain in the city which may be impacted by man's activities both within the city and in the surrounding region. The remaining resources important to the city include air, water, and plant life.

5.7.1 AIR QUALITY

Regional Air Quality

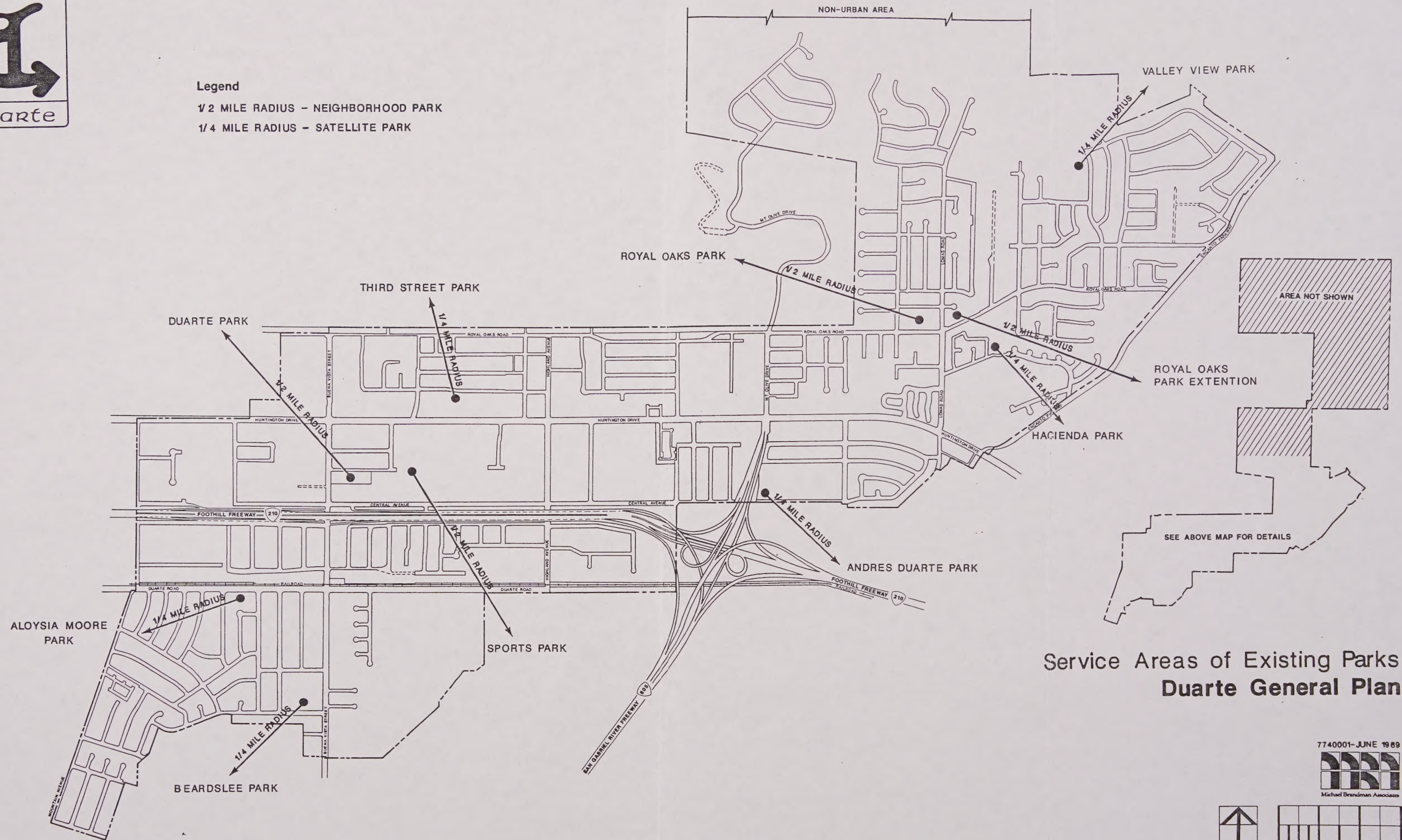
The South Coast Air Basin of California, which includes Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties, experience some of the worst air quality in the United States. Although federal law required all areas of the nation to meet all air quality standards set to protect public health by December 31, 1987, peak readings in the basin in 1987 were three times the standard for ozone, twice the standard for carbon monoxide, and 80 percent of the standard for fine particulates. Nitrogen dioxide levels were exceeded only in Los Angeles County and nowhere else in the nation.



Legend

1/2 MILE RADIUS - NEIGHBORHOOD PARK

1/4 MILE RADIUS - SATELLITE PARK



**Service Areas of Existing Parks
Duarte General Plan**

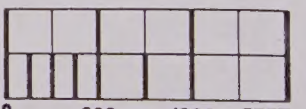
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Michael Brandman Associates



North



Climate and topography affect the basin's air quality. During the summer months, a warm air mass frequently descends over the basin, inhibiting the dispersion of pollutants. Weak summer breezes also slow dispersal, allowing pollutant concentrations to build up. Strong sunlight, needed for the photochemical process that produces ozone, is also abundant in summer. Inversion layers also occur in winter, resulting in high concentrations of nitrogen dioxide and carbon monoxide. Sunlight is not sufficiently intense in winter to produce high levels of ozone. Rainfall is infrequent in summer and is usually limited to occasional storm systems in winter, most often from December through February.

Primary responsibility for monitoring and controlling pollution in the basin resides with the SCAQMD. The California Air Resource Board (CARB) is responsible for regulating motor vehicle emissions, and both the CARB and EPA have some oversight authority over the SCAQMD. The SCAQMD air monitoring network is illustrated in Exhibit 5-3.

Air Quality in Duarte

Due to its location in the San Gabriel Valley in Los Angeles County, Duarte shares many of the air quality problems associated with the urbanized core of the South Coast Air Basin (SCAB). Emissions from industrial sources and from automobiles account for most of the region's air pollution.

The air quality standards and exceedences from the nearest air quality monitoring station are provided in Table 5-3. The air quality in and around Duarte is marginal for certain pollutants, particularly ozone and PM₁₀.

TABLE 5-3

SUMMARY OF ANNUAL AIR QUALITY DATA,
AZUSA AIR QUALITY MONITORING STATION^a

<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	
Ozone (O ₃)					
State standard (1-hr avg. 0.10 ppm)					
Federal standard (1-hr avg. 0.12 ppm)					
Maximum concentration	0.39	0.31	0.36	0.31	0.30
Number of days state standard exceeded	151	168	166	165	163
Number of days federal standard exceeded	123	139	117	126	111
Carbon Monoxide (CO)					
State standard (1-hr avg. 20 ppm)					
Federal standard (1-hr avg. 35 ppm)					
Maximum concentration 1-hr period (ppm)	10	7	9	10	9
Number of days state standard exceeded	0	0	0	0	0
Number of days federal standard exceeded	0	0	0	0	0
Nitrogen Dioxide (NO ₂)					
State standard (1-hr avg/ 0.25 ppm)					
Federal standard (0.0534 AAM in ppm)					
Maximum 1-hr concentration	0.26	0.16	0.27	0.21	0.23
Number of days state standard exceeded	1	0	1	0	0
Percent federal standard exceeded	--	--	0	0	0
Total Suspended Particulates (TSP) ^b					
State standard (24-hr avg. 150 ug/m ³)					
Federal standard (24-hr avg. 260 ug/m ³)					
Maximum 24-hr concentration	220	195	227	276	254
% samples state 24-hr standard exceeded	22	18	15	13	33
% samples federal 24-hr standard exceeded	0	0	2	2	0
Suspended Particulates (PM ₁₀) ^b					
State standard (24-hr avg. 50 ug/m ³)					
Federal standard (24-hr avg. 150 ug/m ³)					
Maximum 24-hr concentration	NM	NM	149	183	188
% samples exceeding state 24-hr standard			--	60	64.4
% samples exceeding federal 24-hr standard			--	4	3.4

AAM = annual arithmetic mean

NM = not monitored

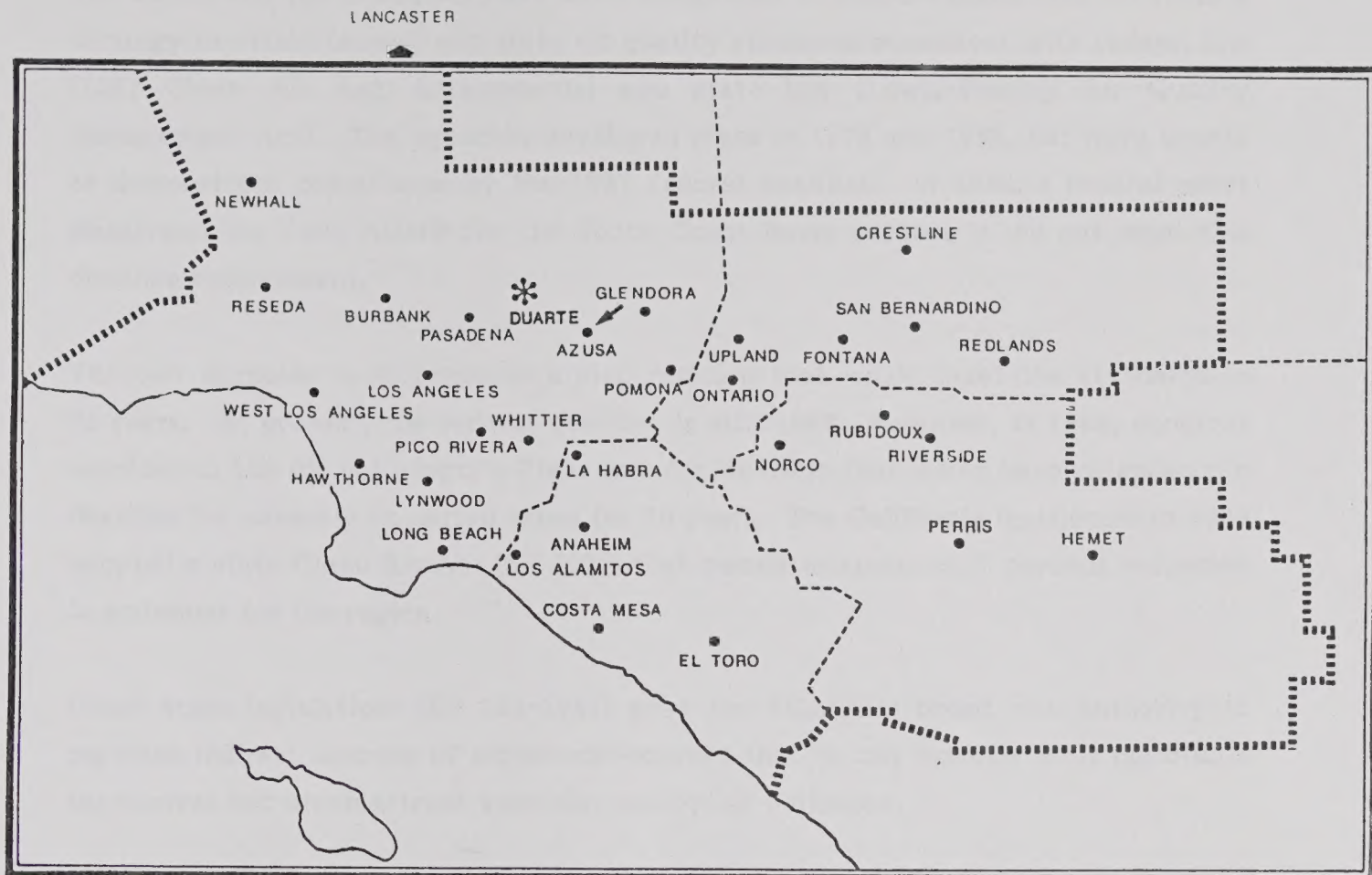
ppm = parts per million

ug/m³ = micrograms per cubic meter

a Pollutants shown are those for which the South Coast Air Basin is designated as a federal nonattainment area. State and federal standards for both lead and sulfur dioxide have been met everywhere in the basin for the past 5 years.

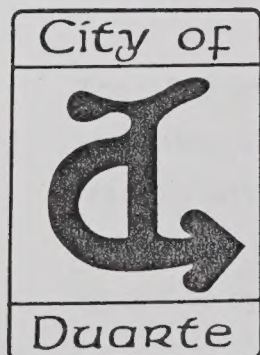
b The state TSP standard was superseded by the state PM₁₀ standard in 1988 and the federal TSP standard was superseded by the federal PM₁₀ standard in 1987.

Source: South Coast Air Quality Management District Air Quality Data--1983, 1984, 1985, 1986, and 1987.



Legend

-  SOUTH COAST AIR BASIN
-  AIR MONITORING STATION
-  STATIONS REPRESENTATIVE OF STUDY AREA'S AIR QUALITY
-  PROJECT SITE



SCAQMD Air Monitoring Network Duarte General Plan

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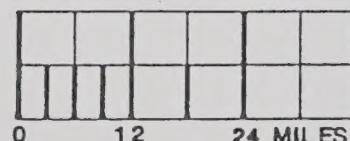
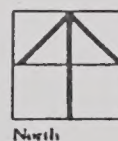


Exhibit 5-3



1. Name of the person or organization submitting the report	2. Date of the report
3. Title of the report	4. Location of the report
5. Summary of the report	6. Details of the report
7. Conclusion of the report	8. Signature of the person submitting the report
9. Name of the person receiving the report	10. Date of the report

Air Quality Management Plan (AQMP)

The SCAG and the SCAQMD have been designated to prepare plans that set forth a strategy to attain federal and state air quality standards consistent with federal law (1977 Clean Air Act Amendments) and state law (Lewis-Presley Air Quality Management Act). The agencies developed plans in 1979 and 1982, but were unable to demonstrate compliance by the 1987 federal deadline. In 1988, a federal court disallowed the 1982 AQMP for the South Coast Basin because it did not meet this deadline requirement.

The two agencies have prepared a plan revision that would meet the standards in 20 years. At present, the federal deadline is still 1987. However, in 1988, congress considered, but did not adopt, a Clear Act Air Revision that would have extended the deadline for severely impacted areas for 20 years. The California legislature in 1988 adopted a state Clean Air Act (SB 2598) that mandates an annual 5 percent reduction in emissions for the region.

Other state legislations (SB 151-1987) gave the SCAQMD broad new authority to regulate indirect sources of emissions--sources that do not directly emit pollutants themselves but which attract vehicular sources of emissions.

AQMP Conformity Requirements

The federal Clean Air Act specifies that all federal actions are required to conform to the local AQMP, and prohibits the local metropolitan planning organization from approving any federal actions that do not conform. The Act specifically empowers the EPA Administrator to withhold, condition, or restrict grants for wastewater treatment facilities that may contribute directly or indirectly to an increase in emissions of any pollutants that would continue or cause a violation of the natural air quality standards. In 1981, the EPA published criteria requiring that transportation plans, programs, and projects also conform with the AQMP.

The 1979 and 1982 AQMP asked local governments to participate in a number of activities, such as energy conservation, street light synchronization, and voluntary transportation management. City actions were considered to be in conformity if they were within the growth forecast in the AQMP and consistent with actions agreed to by the local jurisdiction.

The 1988 AQMP would extend conformity demonstration to all projects requiring A-94 review and considered to be of regional significance. Conformity would be demonstrated through showing consistency with the adopted AQMP jobs/housing balance forecast for the subregion.

Air Quality Elements

Although air quality elements are not required as part of a general plan, the Boards of both the SCAQMD and the bay area AQMP in northern California have requested that cities and counties within their jurisdictional areas prepare air quality elements. These elements would be directed at reducing local sources of emissions that would result from automobile use, energy consumption, and use of polluting materials in homes, offices, and other workplaces. The elements would set forth local strategies to reduce traffic congestion, promote energy efficiency, and establish design standards that result in fewer trips and lower usage of polluting materials, such as certain types of architectural coatings.

The 1988 AQMP revision calls for each city and county within the SCAB to develop and adopt an air quality element by July 1, 1990, that would:

- Restrict local parking (suggested methods include increasing parking fees, eliminating on-street parking, restricting parking in residential zones, establishing park-and-ride lots, etc.)
- Restrict parking at special event centers
- Restrict truck deliveries
- Establish programs to implement the jobs/housing balance goals of the AQMP
- Establish energy conservation programs
- Establish a program of telecommunication strategies

5.7.2 WATER QUALITY

The water provided to the city is a combination of Metropolitan Water District (MWD) water and well water. The MWD water comes from the California Aqueduct system. This water meets or exceeds all state water quality standards. Well water

is provided by the California-American Water Company. Information on the quality of the aqueduct and well water is compiled by the California Department of Water Resources.

The eight wells that provide water to the city were drilled beginning in 1920. The depth of water varies from 32 to 288 feet (static). In addition, nine reservoirs provide local storage for the well water, accommodating fluctuations in demand on both a seasonal and daily basis. A series of booster pumps transport and elevate the water to the reservoirs and increase the delivery pressure of the water provided to customers.

The quality of water available from local groundwater sources is a critical component of the regional water supply network. It is used for both agricultural irrigation and urban domestic consumption. The quality of groundwater throughout the basin is variable. Portions of the San Gabriel Valley Basin are contaminated with organic pesticides, such as TCE and PCE, and are subject to remedial action programs by the California Regional Water Quality Control Board. In addition to threats to the groundwater supply from contamination, continued overdraft of reservoirs is leading to increased salinity and mineralization.

Efficient and conservative use of existing water supplies through water conservation methods is an inherent component of all of the above water issues. Southern California has experienced several episodes of drought over the last few decades. Therefore, continued awareness of and adherence to conservation methods will ensure the availability of a reliable water supply for the city. Many of these measures should have been included in the Urban Water Management Plan for the water district, as dictated by state law. Other state and federal regulations on the quality and conservation of water further the effort of stabilizing the water supply.

5.7.3 VEGETATION AND WILDLIFE

Three dominant types of topography are found in the City of Duarte, mountains, canyons, and foothill slopes. The mountain and canyon areas have changed little over the years due to protection afforded by the national Forest. The exception is some development which has occurred just south of the forest lands. Urbanization has limited the variety of wildlife and vegetation in the developed area to those species

that have either adapted to life with man or have been introduced through urbanization.

The urbanized areas of Duarte have a variety of introduced flora and fauna. The vegetation growing in the city may be thought of in four categories: (1) the interstitial forest consisting of trees growing between buildings and streets; (2) parks and green zones; (3) gardens of ornamental and food plants; and (4) lawns or interstitial grassland.

The wildlife on the slopes and flat areas live in relatively small habitats usually found in an urban area. These species have adapted to life with humans and are at least partly dependent on them for food and cover. The most common types of urban wildlife in Duarte include a wide variety of rodents, birds, amphibians, insects, and domestic dogs and cats.

The northern half of the city, consisting of 2,251 acres is undeveloped wilderness area. The majority of this land is within the boundaries of the Angeles National Forest. The dominant plant communities in the wilderness areas of north Duarte include chaparral and riparian communities. The distribution and extent of these communities are indicated in Exhibit 5-4.

The riparian communities are located along a number of intermittent streams which drain the southern base of the San Gabriel Mountains. The more extensive riparian habitats are located in the upper elevations of between 2,000 to 3,200 feet. Typical vegetation found in the riparian areas include cottonwoods and the California sycamore. The generalized location of the riparian areas are indicated in Exhibit 5-4.

The chaparral is the dominant plant community in the northern wilderness area. There are two types of chaparral found in southern California: the true chaparral found in higher elevations and the coastal sage scrub which is generally limited to the south coast ranges. The chaparral community in the Duarte planning area is dominated by California sage brush, white sage, black sage, California buckwheat, and other perennial shrubs.

5.8 DESCRIPTION OF CULTURAL AND HISTORIC RESOURCES

This section describes the cultural and historic resources found within the city. The cultural resources include community services, such as libraries, schools, and other civic amenities. Historic resources include historically significant buildings, places, and artifacts, such as museum archives. The city has a rich history that dates back to a strong Native American heritage. The cultural and historic resources are described below.

5.8.1 SCHOOLS

Primary and secondary education for Duarte students is provided by the Duarte Unified School District which includes five elementary schools, one intermediate school, and one high school. The elementary schools include Andres Duarte, Beardslee, Maxwell, Royal Oaks, and Valley View elementary schools. Northview Intermediate School and Duarte High School provide secondary education for Duarte students. The city is in the process of relocating the Northview Intermediate School from its present site on Central Avenue, west of Buena Vista to Central Avenue, adjacent to Duarte High School. This move, along with the construction of new school administration offices, will create a state of the art educational park. The educational park concept will allow the junior high students the opportunity to use the high school facilities. All schools within the district are located in the City of Duarte, with the exception of Maxwell and Royal Oaks Elementary School. Exhibit 2 in Section 2.2 shows the location of the school sites.

5.8.2 LIBRARY

The City of Duarte is served by a branch of the Los Angeles County Library system. The library is part of the 91-library county system. The library has approximately 48,000 volumes, about one-third of these are juvenile titles. There are three full-time staff people, including a librarian, children's librarian, and library assistant. In addition, there are four aids and two pages for the facility. There are no plans to expand the library.

5.8.3 ARCHAEOLOGICAL RESOURCES

Cultural Overview

Prior to European contact and missionization, the Gabrielino Indians followed a hunting and gathering way of life. Although archaeologists have only a meager knowledge of the prehistoric Gabrielino lifeways, it is known that the Gabrielino made use of a wide variety of plants and animal resources. Food resources included acorns, sage, yucca, cacti, marsh plants, deer, rodents, rabbits, birds, fish, and many more plants and animals.

Two main types of settlements, primary villages and secondary gathering camps, were established by the Gabrielino. They were a resourceful people who frequently located their villages on top of ridges and on flat promontories overlooking arroyos. Villages were always near a source of water. From the ridge tops and promontories, game could be spotted, enemies observed, and the necessary food and water obtained (Clewlow 1973). Living quarters were domed, circular structures that were thatched with tule, fern, or carrizo. Small earth-covered sweathouses, women's menstrual hunts, and ceremonial enclosures were also found in the villages.

Most of the Gabrielino material culture was perishable. What archaeologists find today accounts for very little of what the Gabrielino people made and had. Many of the perishable items were described in the journals and accounts of explorers and missionaries. These descriptions suggest that the Gabrielino had a highly developed craft and artisanry. The material culture included clothing made of deerskin, bark, rabbit fur, or feathered birdskins. Footwear consisted of yucca sandals. Deerskin robes or rabbit fur blankets were used as coverings during cooler temperatures. Ritual costumes were colorful and elaborate. Bright colored paints were applied to the body during ceremonies and rites.

Objects made by the Gabrielino, either for everyday use or for special occasions included items decorated with shell inlay, rare minerals, carvings, and painted decoration. Unworked steatite or items made of steatite were obtained through trade from the people of Santa Catalina Island. These items included pipes, animal effigies, ornaments, pendants, and cooking bowls and utensils. Locally made or obtained tools consisted of animal bone tools, bone or shell needles and fishhooks,

bone awls, and a variety of stone tools. Their weapons included wooden clubs, arrows with tips of stone or bone, untipped cane arrows, and both self- and sinew-backed bows (Bean and Smith 1978:542).

Food preparation was assisted through the use of bedrock and portable stone millingstones used to break-up and grind acorns, seeds, and dried fruits into a fine flower-like consistency. Other culinary tools used were basketry hoppers and mullers, mealing brushes, wooden stirrers and paddles, shell spoons, bark platters, bowls made of a variety of minerals, and pottery vessels.

Gabrielino basketry was made into a variety of forms which included mortar hoppers, flat plates and trays, winnowers, and storage baskets in many sizes. Baskets were also made for ceremonial purposes. Some baskets were made solely for the annual mourning ceremony at which time the baskets would be destroyed as part of the memorial to those who had died during the past year. Baskets were also made to be used as grave goods to accompany the dead on their journey to the afterlife. Small trinket baskets were made to hold special possessions (Bean and Smith (1978:542).

Little is known about the social and political nature of the precontact Gabrielino. It appears that there may have been a hierarchically-ordered social structure with at least three social classes. The politically autonomous villages were made up of many family lineages, each with its own leader. A dominant leader was usually considered the "chief" of that village.

Gabrielino lifeway was structured around the human lifecycle of birth, puberty, marriage, and death. With each of these phases of life came rites of passage. The daily subsistence activities were generally divided according to sex, with the men doing the hunting and the women gathering and preparing the plant and small animal food stuffs.

War, feuds, intermarriage, and trade relations existed with neighboring peoples. Political and economic alliances were commonly established to enlist aid in time of need.

The religion and cosmology of the Gabrielino is not well understood. It is commonly thought that the powerful and highly elaborate Chingichngish cult, which spread to

many southern California cultural groups, began with the Gabrielino people. Hallucinogenic-induced vision questing and sand paintings depicting cosmological beings were a part of these religious activities.

The Gabrielino were severely impacted by the Spanish colonization and settlement. Disease, violence, and malnutrition caused a major population decline shortly after Spanish settlement began in California. The dominance of the Spanish over the Indians led many of the Indians to adopt the Spanish language, religion, and many other aspects of lifestyle. Native religious and ceremonial practices were forbidden by the Spanish, which resulted in the loss of much of the Gabrielino culture.

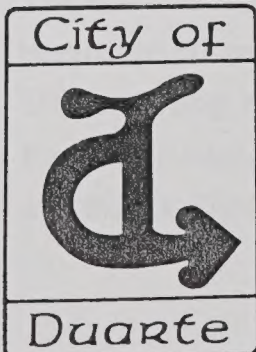
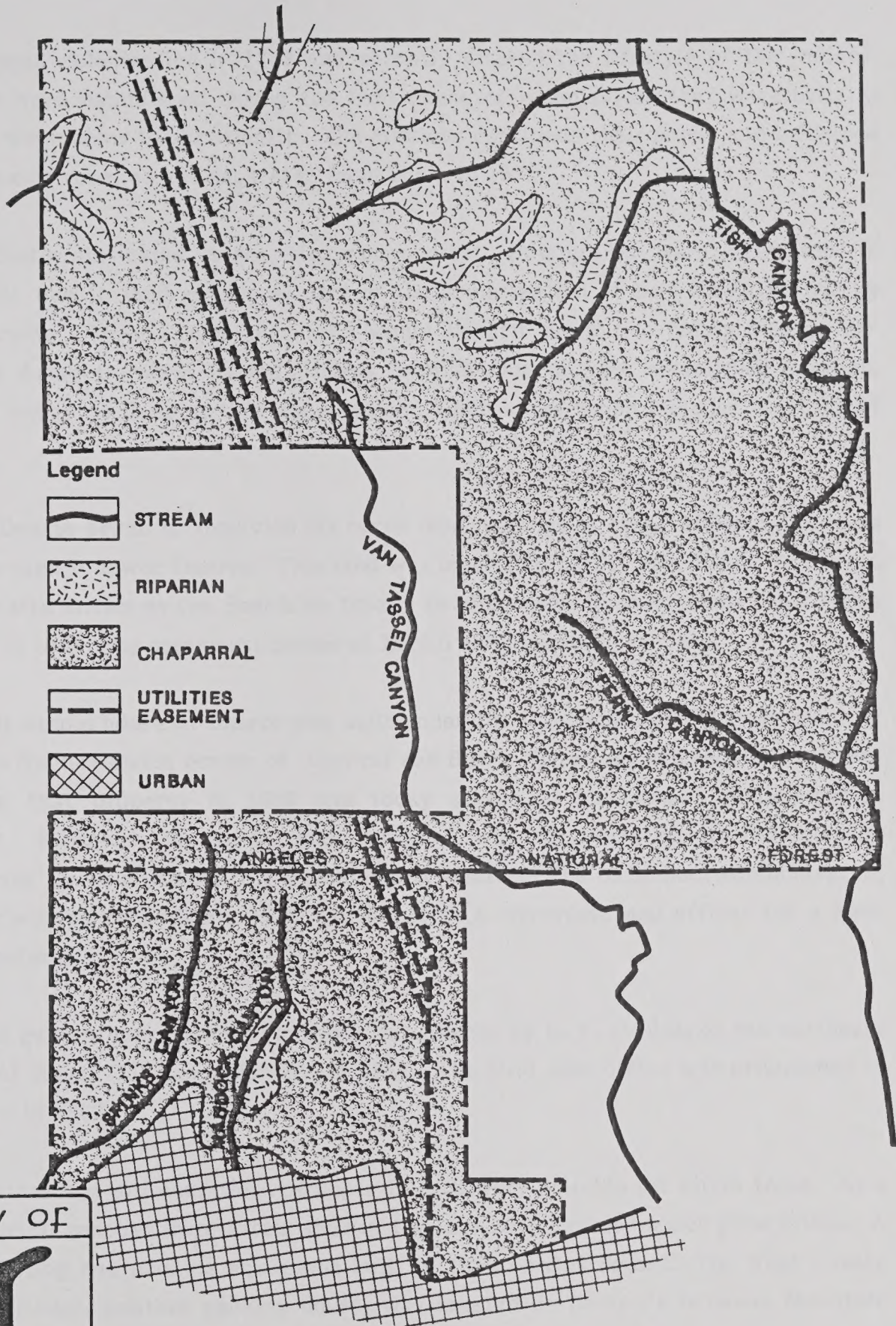
Today, there are several individuals and families living in the Los Angeles region claiming Gabrielino ancestry. There is a renewed interest in learning about and preserving their ancestral culture.

Archaeological Site Survey

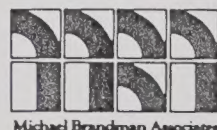
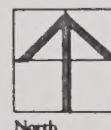
An archival records search was undertaken by Leslie Mouriquand-Blodgett in March 1989 to determine the nature and extent of known archaeological sites within the planning area. In addition, Ms. Mouriquand-Blodgett noted the field surveys that had been completed and recorded in the planning area.

A number of surveys have been completed within the planning area though no sites or artifacts were identified. The only recorded survey was for a large tract of land in the northernmost portion of the urbanized area of the city in the vicinity of Las Lomas Avenue.

The archival search indicated that only two sites had been recorded within a 1-mile radius of the city. The nearest recorded site, LAN-241 is located just east of the city boundaries in the national forest. Scattered artifacts were found, including two manos, two scrapers, and one core tool. The second site, Lan-1368H, is a historic site located east of the San Gabriel River in Azusa. This site is a historic trash dump which was used between 1910 and 1960.



Wilderness Areas Duarte General Plan



7740001-JUNE 1989
NO SCALE

Exhibit 5-4



Wichita Avenue
Downtown General Store

5.8.4 HISTORIC SITES

Spain began colonization in 1769 and abruptly altered the lifestyle of the indians. Missions were established during the first phase of colonization that were built to convert the indians to christianity. The missions continued their power and influence after Mexico rebelled and separated from Spain in 1822.

When California came under Mexican control, immigrants were attracted to California due to land reform as part of the seclarization of land formally held by the Catholic Church. One man who would benefit from this policy was an ex-Mexican Army Corporal named Andres Avelino Duarte. He established a ranch, Rancho Azusa de Duarte, that encompassed 7,000 acres which includes the City of Duarte.

Andres Duarte began to subdivide his ranch land holdings in 1855. He sold 225 acres to three men in lower Duarte. This land was later sold to Dr. Beardslee. That area today is still known as the Beardslee tract. Dr. Beardslee built an adobe brick house on what is today the southwest corner of Euclid and Mountain Avenues.

The first school house in Duarte was built under the inspiration of Dr. Beardslee. It stood on the northwest corner of Central and Buena Vista. A third school house was built on that property in 1909 and today serves as the school administration building. However, the school administration will be relocating its facilities on Huntington Drive adjacent to the community center. The old school administration building will be rehabilitated and will serve as a showroom and offices for a Ford Auto Dealership.

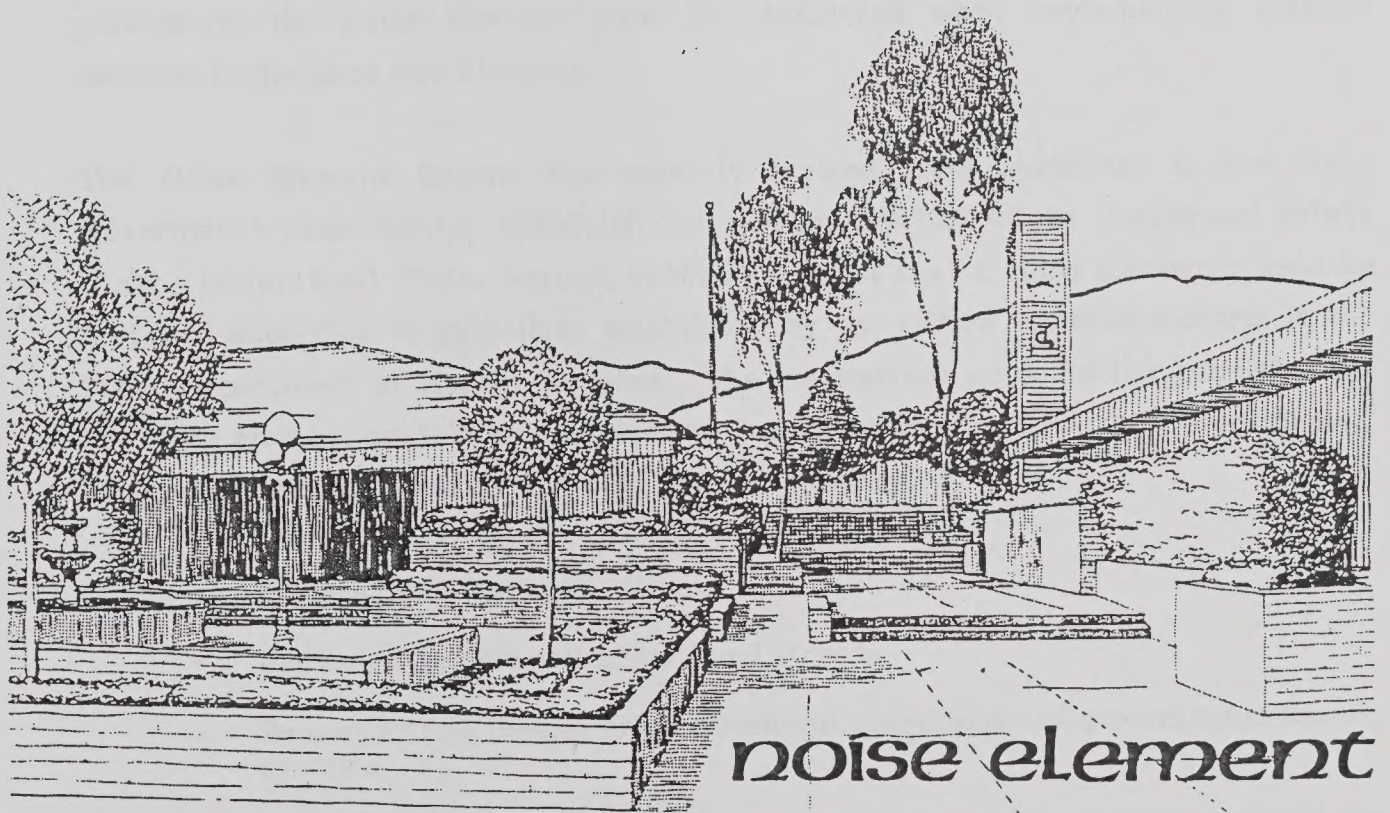
The first general merchandise store was established by H. F. Daniels on the northeast corner of Royal Oaks and Highland in 1881. The first post office was established in the store in 1882.

The climate and soil conditions of upper Duarte were suitable for citrus trees. As a result, small ranches were established in the late 19th century which grew citrus. A citrus sorting and packing house was built in 1890 on Oak Street. The West Duarte Packing House, another packing house, was located on Santa Fe between Mountain and Buena Vista.

The emergence of the railroad in southern California drastically changed the lives of the farmers. The Southern Pacific Railroad built its Duarte depot on North Highland at Third Street which is now occupied as a fire station.

The first housing subdivision was the Davis Addition and was named for the man who purchased and subdivided the area during the 1880s. The first Episcopal Church in southern California, the All Saints Episcopal Church, was established in Duarte in approximately 1896. Duarte had only two regular hotels during its history, not counting the motor hotels located along Route 66. Both hotels were located on Highland Avenue, a few doors apart. These hotels were known as "The Oaks" and "The Duarte Hotel."

Many people moved to Duarte for health reasons due to the warm, dry climate. Two institutions emerged to serve as sanitariums--The City of Hope and Santa Teresita Hospital. Today, the City of Hope is one of the premier cancer research facilities in the nation.



noise element

The first part of the report is a general description of the area, including the location, size, and general characteristics of the area. It also includes a brief history of the area and a description of the current land use.

The second part of the report is a detailed description of the area, including a description of the land use, the vegetation, the wildlife, and the water resources. It also includes a description of the current land use and a description of the proposed land use.

The third part of the report is a description of the proposed land use, including a description of the proposed land use, the proposed land use, and the proposed land use. It also includes a description of the proposed land use and a description of the proposed land use.



SECTION 6

NOISE ELEMENT

6.1 INTRODUCTION

The state requirements governing the preparation of Noise Elements are the most specific in terms of required content and the methods used in the analysis and preparation. The goals and policies contained in the noise element are concerned with protecting residents from noise that might affect their health and welfare.

The noise element of a general plan is a comprehensive program for including noise control in the planning process. It is a tool local planners use to achieve and maintain land use compatibility with environmental noise levels. The Noise Element will identify noise sensitive land uses and noise sources, and define areas of noise impact for the purpose of developing programs to ensure that Duarte residents will be protected from excessive noise intrusion. In addition, the Noise Element will require the consideration of any possible adverse impacts related to noise in future decision-making concerning future development. For this reason, the goals and policies in the Noise Element must be considered when implementing policies outlined in the Land Use Element.

The Noise Element follows the recently revised state guidelines in the State Government Code Section 65302.1(f) and Section 46050.1 of the Health and Safety Code. Government Code, Section 65302.1(f) states that a noise element should be prepared according to guidelines established by the Office of Noise Control in the State Department of Health Services. The government code further requires that the noise element contain an analysis and quantification "to the extent practicable," of existing and projected noise levels for the following:

- Highway and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Commercial, general aviation, helicopter, and military airport operations; aircraft overflights; jet engine test stands; and all other ground facilities and maintenance functions related to airport operation

- Local industrial plans and other ground stationary noise sources identified by local agencies as contributing to the community noise environment

In addition, the government code, as amended January 1, 1986, provides some specific direction in the preparation of noise elements. Section 65302.1(f) states:

- "Noise contours shall be shown for all of the sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources."
- "The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise."
- "The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guidelines for compliance with the state's noise insulation standards."

A number of major issues related to noise in the city are identified in this background report:

- The major mobile noise sources include vehicles operating on the major arterials that serve the city: Huntington Drive, Buena Vista Street, Highland Avenue, and Duarte Road.
- I-210, at it closet point to the city, is elevated and results in significant noise levels in the city.
- Residential areas located along Huntington Drive and Highland Avenue and near the industrial areas are also exposed to high levels of traffic noise during certain periods of the day.
- In those areas where industrial operations are located in close proximity to homes, there is a potential for noise impacts from machinery, work activities, and truck traffic.

6.2 GOALS AND POLICIES

ISSUE: NOISE CONTROL IN RESIDENTIAL AREAS

The following goal relates to protecting the city residential areas from excessive and offensive noises. The subsequent policies encourage sound walls, landscaping, and other design techniques to control noise pollution in the city.

Goal 1:

To maintain a quiet environment in Duarte's residential neighborhoods.

Policies:

- 1.1 Encourage the State Department of Transportation (Caltrans) to continue programs which lead to the reduction of the noise levels on I-210 and I-605.

Implementation: In coordination with Caltrans, the city will prepare a phased program for the construction of sound walls along I-210 and I-605.

- 1.2 Continue the city's beautification program along Huntington Drive and related arterials to help reduce noise levels.

Implementation: Require earthen berms, setbacks, and other noise reduction techniques as conditions of development.

- 1.3 The city should encourage, support, and enforce all state and federal legislation designed to abate and control noise pollution.

Implementation: Support noise abatement legislation through increased lobbying activities.

ISSUE: LAND USE COMPATIBILITY

The following goal and policies emphasize the need to separate noise generating land uses from noise sensitive land users.

Goal 2:

To establish land uses which are compatible with noise levels within the community.

Policies:

- 2.1 Evaluate noise levels associated with various transportation related activities in the city.

Implementation: Monitor existing noise levels along major arterials and enforce the city's noise ordinance where necessary.

- 2.2 Establish a system of locating land uses according to the maximum noise levels they generate.

Implementation: Prepare noise and land use compatibility guidelines which can effectively reduce noise exposure to acceptable levels.

- 2.3 Enforce limits set by the state to control noise levels, particularly those governing motor vehicles.

Implementation: Review the city's noise reduction ordinance to ensure compliance with state requirements.

ISSUE: NOISE REDUCTION

The following goal and policies address the issue of reducing the level of noise in the city, especially near noise sensitive land uses.

Goal 3:

To reduce noise in all areas of the city, especially in the residential neighborhoods and near schools.

Policies:

- 3.1 Reduce noise from freeways and rock quarrying operations.

Implementation: Continue to monitor these activities and prepare periodic reports which will analyze noise reduction attempts.

- 3.2 Prohibit significant noise generating activities from locating adjacent to residential neighborhoods and near schools.

Implementation: Require noise studies during the development review process if a project has the potential to generate significant noise.

- 3.3 Reduce outdoor noise levels in existing residential areas where economically and aesthetically feasible.

Implementation: Install soundwalls, noise insulation, and other mitigation methods in areas exceeding city standards.

ISSUE: TRANSPORTATION NOISE

The following goal and policies focus on reducing transportation related noise.

Goal 4:

To provide measures to reduce transportation noise impacts.

Policies:

- 4.1 Encourage the construction of sound walls to mitigate sound emissions when necessary or feasible.

Implementation: Require new developments to pay their fair share of mitigating measures.

- 4.2 Prohibit truck traffic from utilizing local residential streets.

Implementation: Limit construction, delivery, and through truck traffic to designated routes.

- 4.3 Encourage accoustical materials in all new residential commercial developments where noise levels exceed the compatibility standards outlined in the Noise Element.

Implementation: Require noise mitigation methods as a condition of approval during the development review process.

6.3 NOISE MITIGATION PROGRAM

The major sources of noise in the City of Duarte are transportation related. These sources include I-210 the surface streets, railroads, and rapid transit.

The traffic noise generated from the surface streets and freeways represent a constant noise. Railroads, on the average, generate a higher level of noise; however, it lasts for a short period of time, creating intermitant noise as opposed to a constant noise.

Residents are protected from excessive noise through established local and state laws and standards. The Durate Noise Ordiance will also serve as a primary implementation measure for reducing excessive noise in the city. The California Department of Transportation (Caltrans) has established, according to Section 215.5 of the State Streets and Highway Code, a priority system for erecting sound walls along freeway routes. The state has also established noise insulation standards pursuant to Title 25, Section 1092 of the California Administrative Code. This code protects multiple-family residential dwelling units from excessive and unnecessary noise.

In addition, the city's development review process requires noise studies which will require mitigation measures if it is found that sure measures are needed to reduce noise levels.

6.3.1 NOISE AND LAND USE COMPATIBILITY STANDARDS

The goal of this Noise Element is to protect residents from excessive or irritating noise. The impacts from noise can be decreased through regulatory noise controls and land use planning. These standards are used to create a more healthful environment for residents.

Several federal and state agency's have developed guidelines relative to land use and noise. These agencies include the Environmental Protection Agency, Federal Highway Administration, Department of Housing and Urban Development, American National Standards Institute, and the State of California.

These agencies standards are based upon cumulative noise criteria, such as the Community Equivalent Level (CNEL) and Day-Night Average (Ldn). These guidelines represent weighted averages of twenty-four 1-hour Leq measurements, with decibel weights assigned to the evening, night, and early morning hours.

In 1976, the California Department of Health established noise element guidelines that contained a recommended noise/land use compatibility matrix. The matrix, reproduced in Exhibit 6-1, outlines acceptable levels of noise for different land uses. The matrix is a good guide for noise responsive land use planning. The standards displayed in the matrix are conditionally acceptable uses and are relevant to uses in the City of Duarte.

6.3.2 PROGRAM IMPLEMENTATION

The primary mechanism used to implement noise policy will be the noise ordinance. The ordinance gives the city the authority to regulate noise at its source and, thereby, protect noise sensitive land uses.

Having an established land use pattern prevents the city from using wide scale land use planning as a tool to minimize noise impacts. However, there are other noise reduction strategies that can be used to achieve acceptable noise levels for existing and new developments. These strategies include noise reduction barriers which can be constructed between noise sensitive land uses, such as residential development and incompatible land uses. For example, noise reduction barriers can reduce the

exposure of residential neighborhoods to industrial noise, thus reducing the noise impact on adjacent residential developments.

The city can also require new residential development to use new construction techniques and materials to achieve state standards for interior ambient noise levels. Also, the city can encourage Caltrans to install sound walls along I-210 as it traverses the city.

6.3.3 IMPLICATIONS FOR LAND USE

As discussed, the primary sources of noise in Duarte include traffic on the major roadways and I-210. These noise sources impact the land uses located along these transportation routes. Table 6-1 indicates the projected noise levels for the major arterial roadways in the city following buildout. The future noise environment is described in Exhibit 6-2.

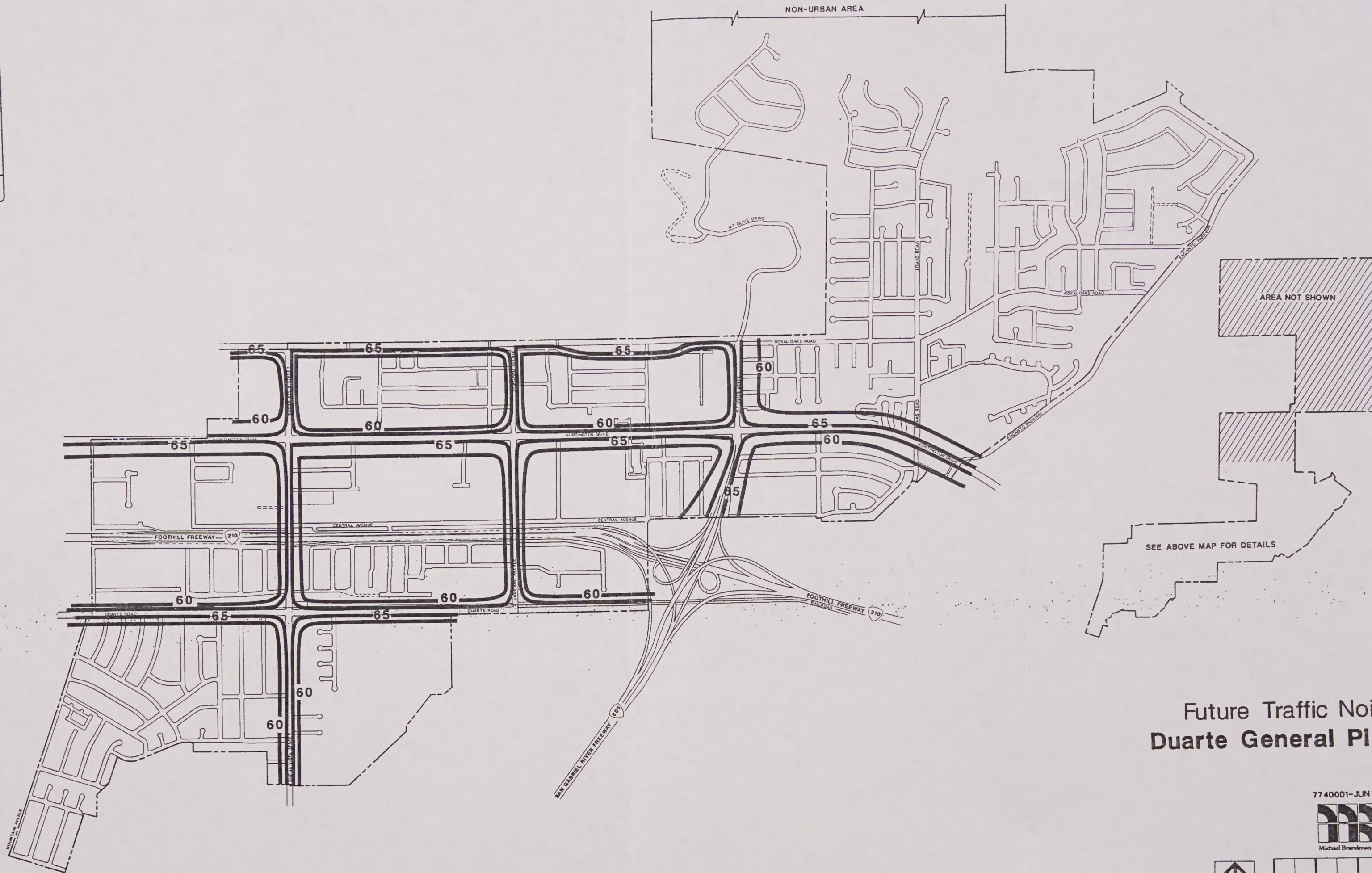
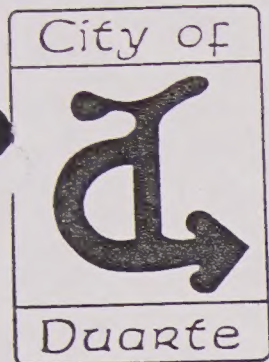
Those areas most effected by adverse noise levels will be the new land uses proposed along these major arterials. These new land uses will also contribute to the existing problem because of increased traffic. Appropriate interior noise levels in new commercial, industrial, and residential developments will need to be strictly enforce. Acoustical designs to achieve the desirable level of noise should be demonstrated by the project sponsor in sufficient detail to satisfy city and state requirements.

In regards to existing land uses impacted by existing noise sources, the city should attempt to monitor these levels and prepare a phased program which will implement noise reduction barriers.

TABLE 6-1
FUTURE TRAFFIC NOISE PROJECT

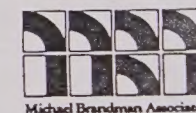
Roadway Segment	Distance from Roadway Centerline to CNEL (in feet)				CNEL at 50 Feet From Centerline
	70 CNEL	65 CNEL	60 CNEL	55 CNEL	
Buena Vista at					
City Limits	0.0	0.0	92.6	276.7	60.61
Duarte 0.0	68.2	193.2	603.4	64.02	
Freeway 0.0	91.7	273.6	859.7	65.56	
Huntington	0.0	87.0	257.8	809.5	65.30
Royal Oaks	0.0	0.0	110.1	334.6	61.56
Duarte Road at					
Mountain	0.0	73.6	199.3	618.7	63.84
Highland at					
Buena Vista	0.0	0.0	197.9	618.5	64.13
Duarte 0.0	0.0	135.6	419.3	62.51	
Huntington	0.0	0.0	117.0	358.9	61.83
Huntington at					
Mountain	0.0	161.5	499.7	1576.5	68.09
Buena Vista	0.0	127.7	390.0	1228.6	67.00
Highland	0.0	141.7	435.5	1373.1	67.49
Mt. Olive	0.0	122.6	373.2	1175.5	66.81

Source: Michael Brandman Associates, 1989.

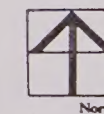


Future Traffic Noise Duarte General Plan

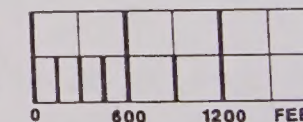
7740001-JUNE 1989



Michael Brandman Associates



North





NOISE ELEMENT BACKGROUND REPORT

6.4 INTRODUCTION

Duarte residents are exposed to a wide range of noise levels that are common in urbanized environments. Major noise sources in the city include automobiles, trucks, and trains. Much of this traffic noise comes from the major arterials that traverse the city and I-210. Noise from trains also affects those areas located along the railroad tracks that cross the city from the east. Stationary noise sources within Duarte also generate noise that affects noise-sensitive uses located nearby. These stationary noise sources include a wide range of recreational, commercial, and business activities.

A number of major issues related to noise in the city are identified in this background report:

- The major mobile noise sources include vehicles operating on the major arterials that serve the city: Huntington Drive, Buena Vista Street, and Highland Avenue.
- Interstate 210 at its closest point to the city is elevated and results in significant noise levels in the city.
- Residential areas located near Huntington Drive and Highland Avenue and near the industrial areas are also exposed to high levels of traffic noise during certain periods of the day.
- In those areas where industrial operations are located in close proximity to homes, there is a potential for noise impacts from machinery, work activities, and truck traffic.

6.5 CHARACTERISTICS OF SOUND

Before the existing noise environment can be described, there are a number of terms that need to be explained, as well as the various methods used to evaluate loudness. The most commonly used units for measuring the noise levels are decibel (dB), Equivalent Noise Level (Leq), and the Community Noise Equivalent Level (CNEL).

Sound may be best described as a physiological sensation received by the ear caused by a vibrating source that transmits a pressure wave through some material medium; most often this medium is air. This vibration, when traveling through air, transmits pressure waves, creating sound energy. This sound energy is most often measured in decibel units which are finite units of sound pressure energy, based on logarithmic scale.

A decibel is the basic measurement unit used for measuring the intensity of sound. For example, on a scale of 0 dB to 140 dB, 0 represents the lowest sound that can be heard by humans while 140 dB is the point where permanent injury to the eardrum is possible. The Leq measure represents the average of the sound level energy for a 1-hour period and employs an A-weighted decibel correction that corresponds to the optimal frequency response of the human ear. Noise impacts are commonly evaluated using the Community Noise Equivalent level (CNEL) noise index. CNEL is a method of representing in a single number the combined effect of a daily noise exposure. The CNEL value computed at any point is the sum of the decibel values if the sound, with corrections for time of day, and averaged over 24 hours. Weighting factors of 3 and 10 are employed to account for increased sensitivity to noise in the evening (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods. Ldn uses the same baseline scale, but includes only the nighttime weighting factor.

Intermittent or occasional noise, such as noise associated with stationary noise sources, and peak noise events, is not of sufficient volume to exceed community noise standards based on a time averaged scale such as the CNEL scale. The Percent-Noise Level (L percent) method is used to characterize and evaluate intermittent noise. This method gauges the percentage of time that intermittent noise exceeds the average decibel level during the measurement period.

Noise ordinances are typically specified in terms of the percent noise levels. These ordinances are designed to protect people from nontransportation-related noise sources such as machinery, music, and traffic on private property. Noise ordinances generally do not apply to motor vehicle noise on public streets or other transportation-related noise sources that are preempted by the state or federal governments.

Noise/land use guidelines have been produced by a number of state and federal agencies, including the Federal Highway Administration, the Environmental Protection Agency, the Department of Housing and Urban Development, the American National Standards Institute, and the State of California. These guidelines, presented in summary in the following paragraphs, are all based upon cumulative noise criteria such as Leq, Ldn, or CNEL. These land uses and compatibility guidelines are illustrated in Exhibit 6-1 in the preceeding section.

Environmental Protection Agency (EPA): In March 1974, the EPA published a landmark document entitled "Information on Levels of Environmental Noise Required to Protect Public Health and Welfare with an Adequate Margin of Safety" (EPA 550/9-74-004). According to this publication, 55 Ldn is described as the threshold level with an adequate margin of safety for areas for outdoor activities associated with residential development and recreational activities. The EPA "levels document" does not establish standards, specifications, or regulations, but identifies safe levels of environmental noise exposure without consideration for economic cost for achieving these levels.

Federal Highway Administration (FHWA): The FHWA has adopted and published noise abatement criteria for highway construction projects. The FHWA noise abatement criteria establishes an exterior noise goal for residential land uses of 67 Leq and an interior goal for residences of 52 Leq. The noise abatement criteria applies to private yard areas and assumes that typical wood frame homes with windows open can achieve 10 dB noise reduction with windows closed.

State of California: The state requires every city and county to adopt noise elements as part of their general plans. These noise elements must contain a Noise/Land Use compatibility matrix. A recommended (but not mandatory) matrix is presented in the "Guidelines for the Preparation and Content of Noise Elements and the General Plan," (Office of Noise Control, California Department of Health, February 1976). This guideline's matrix is depicted in Exhibit 6-1.

6.6 ANALYSIS OF EXISTING NOISE ENVIRONMENT

This general plan considers a wide range of land use and development types as noise sensitive. Noise sensitive land uses include residences, i.e. both single- and multiple-family, schools, medical facilities, and businesses that use noise and vibration sensitive precision equipment.

Results of Noise Survey

A noise study was conducted by Michael Brandman Associates, Inc. (MBA) in April 1989, to document the existing noise environment in the city. This analysis consisted of three primary tasks: (1) identification of noise sensitive land uses, such as residential neighborhoods and schools; (2) measuring noise levels at selected locations in the city; and (3) computerized modeling of ambient traffic noise levels along major roadways in the city. The noise measurement program was conducted at 32 locations throughout the city. The results are depicted in Table 6-2.

TABLE 6-2

NOISE MEASUREMENT SURVEY RESULTS

<u>Location</u>	<u>Time</u> <u>a.m.</u>	<u>Average</u> <u>dBA</u>	<u>Time</u> <u>p.m.</u>	<u>Average</u> <u>dBA</u>	<u>Peak</u> <u>Reading</u>
Second St. and Cotter Avenue	8:25	53	4:25	53	58
Broadland and Kellwill Way	9:59	57	5:04	58	66
First St. and Lak Ave.	9:41	53	4:40	55.5	60
Chimes Ave. and Atlin St.	9:49	55.5	4:50	58	60
Livermont and Bashor	9:59	53	5:01	65	68
Spinks Canyon and Golden Mdw.	10:15	41	4:05	41	45
Mountaincrest and Fish Canyon	12:24	60.5	5:53	63	68
Greenbank and Conata	11:10	51	5:40	53	56
Vineyard and Elda	10:49	52.5	5:19	54	58
Deerland Dr. and Melcanyon Rd.	11:16	52	5:47	54	56
Brookridge and Tannercrest Dr.	11:30	50	6:00	53	56
Beckville St. and Citrusview	9:38	57	4:55	59	68
Pony Ranch Rd. and Pops Rd.	10:26	66	4:56	65	71
Bradbourne and Maynard	10:40	55	5:55	57	61

TABLE 6-2 (continued)

<u>Location</u>	<u>Time</u>		<u>Average Time</u>		<u>Average Peak</u>		<u>Reading</u>
			<u>a.m.</u>	<u>dBA</u>	<u>p.m.</u>	<u>dBA</u>	
Highland and Huntington Dr.			10:14	76	5:19	78	84
Duarte Rd. and Highland Ave.			10:30	69	5:34	71	76
Highland Ave. and Central			11:05	71	4:23	73	76
Delford Ave. and Evergreen			10:48	70	5:15	72	74
Duncannon and Evergreen			10:58	67	5:23	71	76
Vineyard and Royal Oaks			10:40	71	5:10	73	78
Royal Oaks and Greenbank			11:04	69	5:33	72	79
Parkrose Ave. and Central			11:22	73	4:37	74	78
City of Hope			10:10	55	5:27	56	59
Mountain Ave. and Duarte Rd.			10:40	71	4:46	72	76
Duarte Rd. and Cinco Robles			10:15	70	5:20	75	79
Royal Oaks and Buena Vista			10:29	67	5:34	71	76
Royal Oaks and Fish Canyon			10:57	71	5:26	73	79
Mt. Olive and Huntington Dr.			10:06	73	5:10	74	78
Buena Vista and Huntingtonr.			10:22	75	5:29	76	79
Mountain Ave. and Huntington			10:37	76	5:43	76	80
Duarte Rd. and Buena Vista			9:55	73	5:12	73	86
Bloomdale and Buena Vista			11:15	70	5:39	74	76

Source: City of Duarte.

For residential land uses, the noise level of 65 dB is generally used by a number of federal agencies as the dividing line between acceptable and unacceptable noise environment. For many noise sensitive land uses, such as schools, churches, hospitals, etc., 65 dB is also used as the dividing line between acceptable and unacceptable noise environment. The residents located along Buena Vista and Huntington Drive are exposed to noise levels greater than the acceptable noise environment. Noise measurement sites located within residential areas contained Leq calculations lower than 65 dB.

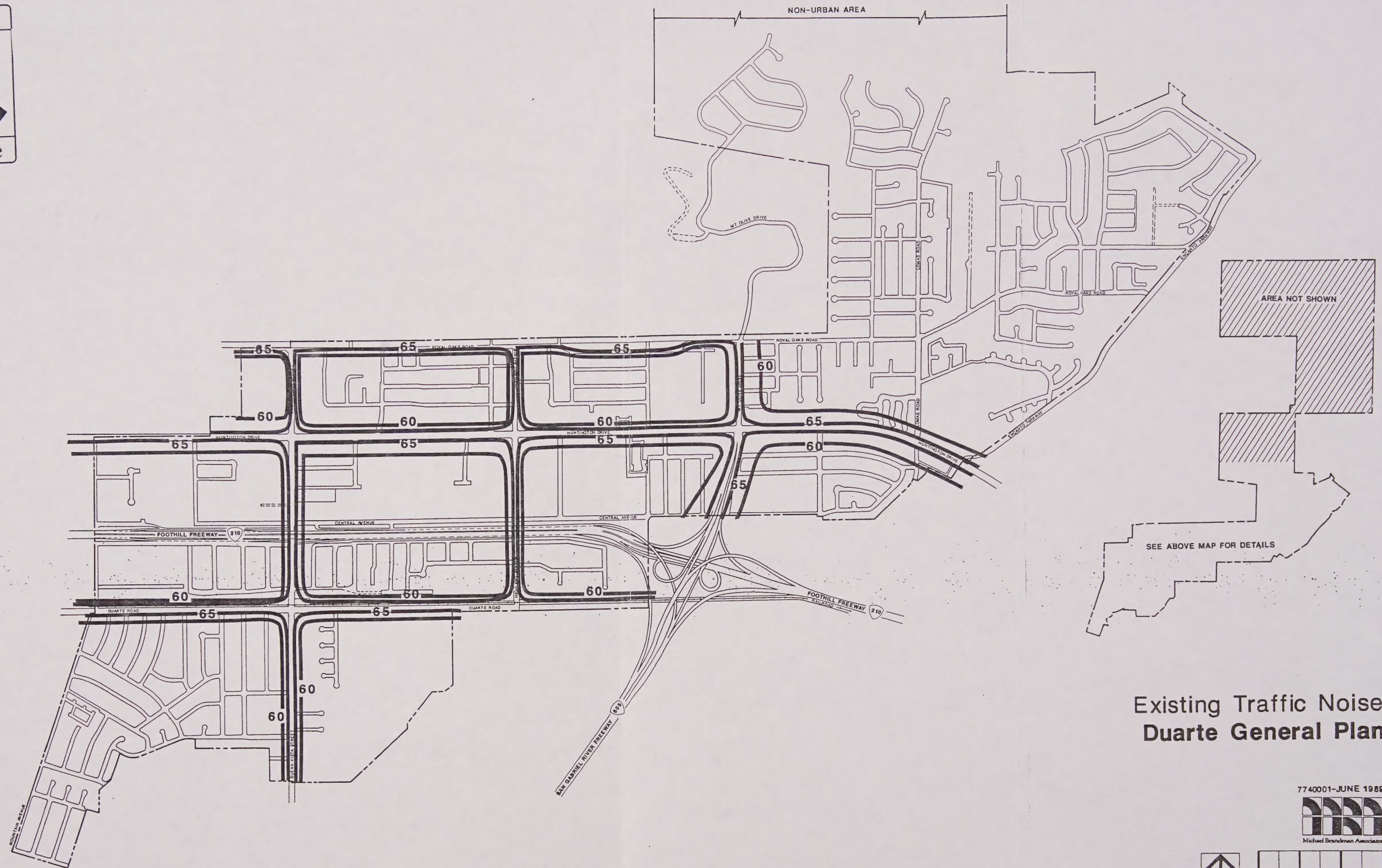
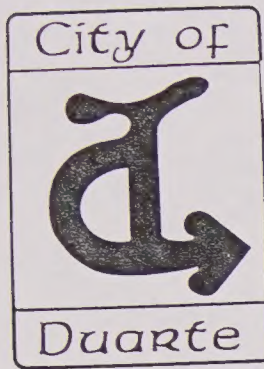
Roadway Noise Study

Existing traffic noise along the major roadways was calculated using the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA-RD-77-108), December 1978. This model was modified to general CNEL values. Model input data was derived from the traffic consultant and field observations which included average daily traffic levels, day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths.

The distances from existing roadway centerlines to the 55, 60, 65, and 70 dB CNEL contour lines and the CNEL at 50 feet from the centerline of the near travel lane are provided in Table 29 and depicted in Exhibit 6-3. The noise contour distances describe worst-case conditions since they do not take into account any obstructions to the noise path (i.e., walls, buildings, etc.) to the noise path.

TABLE 6-3
TRAFFIC NOISE ANALYSIS

Roadway Segment	Distance from Roadway Centerline to CNEL (in feet)				
	70 CNEL	65 CNEL	60 CNEL	55 CNEL	From Centerline CNEL at 50 Feet
Buena Vista at					
City Limits	0.0	0.0	90.4	269.4	60.49
Duarte	0.0	70.9	189.5	587.1	63.61
Freeway	0.0	82.3	230.8	719.9	64.50
Huntington	0.0	90.5	259.7	812.4	65.03
Royal Oaks	0.0	0.0	93.3	279.1	60.65
Duarte Road at					
Mountain	0.0	71.0	193.5	601.0	63.79
Highland at					
Buena Vista	0.0	69.6	197.9	618.5	64.13
Duarte	0.0	0.0	137.0	422.4	62.47
Huntington	0.0	0.0	108.7	330.1	61.39
Huntington at					
Mountain	0.0	155.6	475.8	1,499.1	67.63
Buena Vista	0.0	124.0	371.5	1,167.8	66.54
Highland	0.0	137.0	414.6	1,305.0	67.03
Mt. Olive	0.0	119.3	355.6	1,117.3	66.35



Existing Traffic Noise Duarte General Plan

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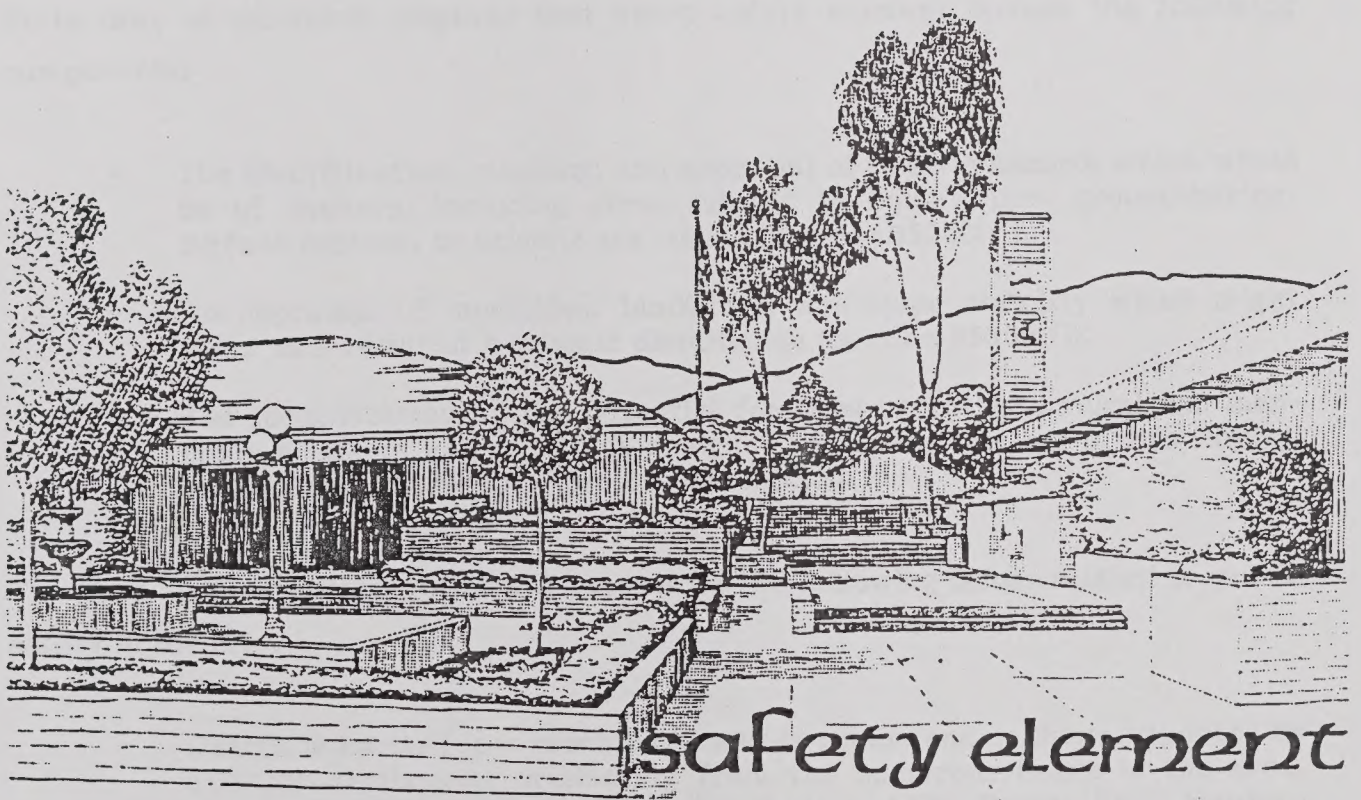
Michael Brandman Associates



TABLE 6-3 (continued)

<u>Roadway Segment</u>	<u>Distance from Roadway Centerline to CNEL (in feet)</u>				<u>CNEL at 50 Feet From Centerline</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	<u>55 CNEL</u>	
Mt. Olive at					
Huntington	0.0	114.2	353.8	1,116.5	67.03
Royal Oaks	0.0	0.0	136.5	425.5	62.83
Royal Oaks at					
Buena Vista	0.0	0.0	141.3	439.9	62.89
Mt. Olive	0.0	0.0	121.5	381.3	62.75

Source: Michael Brandman Associates, Inc., 1989.



safety element



SECTION 7
PUBLIC SAFETY ELEMENT

7.1 INTRODUCTION

The Safety Element is concerned with natural and man-made hazards which may affect the city and the potential risk from these hazards to the residents of Duarte. The Safety Element is also concerned with identifying ways of reducing the risks, property damage, injuries, or loss of life in the event of a natural or man-made disaster.

The State of California General Plan Law and Guidelines was recently amended and some of those changes concern specific issues related to public safety. Prior to these changes made in 1985, state law required every general plan to have a safety element and a seismic safety element or the required components of the two configured into existing or optional element. The recent changes have eliminated the requirement for a separate seismic safety element, though the contents previously required must now be incorporated into an expanded safety element.

State law, as amended, requires that every safety element include the following components:

- The identification, mapping, and appraisal of seismic hazards which would be of concern, including areas subject to liquefaction, groundshaking, surface rupture, or seismic sea waves (Section 65302(f)).
- An appraisal of mudslides, landslides, and slope stability which might occur as a result of a seismic disturbance (Section 65302(f)).
- The identification of the potential for fires and other natural and man-made disasters and measures designed to reduce the loss of life, injury, and damage to property (Section 65302(i)).

The City of Duarte Safety Element focuses on the following issues related to public safety in the city.

- Duarte is located in a seismically active region and could be impacted by a major earthquake originating from the numerous faults in the area. Two major faults, the Sierra Madre Fault and the Duarte Fault traverse the city.

- Portions of the city would be inundated in the event of dam failure from either the San Gabriel Reservoir or the Sawpit Dam.
- Development located in extreme northern portion of the city is in an area where there is a high potential for wildfire during the dry months and periods of prolonged drought.
- The city is served by the Los Angeles County Fire Department and Sheriff's Department which is under contract to the city.
- The city is home to two major hospitals and a number of smaller medical facilities and clinics.

7.2 GOALS AND POLICIES

7.2.1 ISSUE: EMERGENCY PREPAREDNESS

The most likely natural or man-made disasters likely to strike Duarte are associated with wildfires and seismic and geologic hazards. To minimize the risk from these hazards, the following goal and policies will be implemented over the life of the plan.

Goal 1:

To protect the citizens, their property and public facilities from natural and man-made hazards.

Policies:

- 1.1 Prepare and maintain an emergency preparedness plan which would enable the city to operate in a self sufficient manner following a natural or man-made disaster.

Implementation: Conduct periodic emergency exercises among city staff members and other key personnel and implement and update the city's emergency preparedness plan on an on-going basis.

- 1.2 Support community programs that train volunteers to assist police, fire, and civil defense personnel how to perform effectively after the occurrence of a natural or man-made disaster.

Implementation: Prepare a registry of volunteers who live and work in the city who will be able to perform medical assistance, security, and damage assessment in an emergency.

- 1.3 Expand and intensify precautionary measures in high risk areas to reduce loss from natural or man-made disasters.

Implementation: Identify high risk areas and prepare programs which will help minimize loss.

- 1.4 Enforce requirements that all development proposals be reviewed in order that they may be analyzed for safety implications.

Implementation: Continue to update and enforce the city's fire and building codes as appropriate.

- 1.5 Provide adequate levels of service to ensure the public is protected from natural and man-made disasters.

Implementation: Incorporate fire and police department expansion needs in each year's operating budget.

- 1.6 Cooperate with federal, state, and county agencies responsible for the enforcement of all health, safety, and environmental laws.

Implementation: Support federal, state, and county regulations pertaining to health and safety, and fire regulations and ordinances.

Implementation: Train city personnel to help identify possible violations and hazardous material.

In the event of a natural or man-made disaster, the city recognizes the need to be prepared for such emergencies. The goal and supporting policies emphasize the need for emergency preparedness and public awareness.

Goal 2:

To establish, maintain, and develop an awareness on the part of all citizens of Duarte how to react, protect themselves and each other, as well as how to survive in the event of a natural or man-made disaster.

Policies:

- 2.1 Establish and support all appropriate media for reaching all segments of the community (English-speaking and non-English speaking) to educate residents concerning emergency preparedness and safety.

Implementation: Develop and support public information and education programs to familiarize the citizens of Duarte with seismic safety.

- 2.2 Present or support an on-going series of community meetings or seminars, and a community handbook on disaster preparedness and procedures. The program should minimizing hazards in the home, and precautions to be taken after the occurrence of the earthquake.

Implementation: Develop and disseminate a disaster preparedness plan and acquire the related resources which will enable the community to be self sufficient for a minimum of 72 hours following a natural or man-made disaster.

The city recognizes the importance of maintaining and monitoring emergency and safety services that are responsive to the community's needs. The following goal and supporting policies emphasize this concern.

Goal 3:

To achieve a greater perceived sense of citizen satisfaction with the safety services within the community, through constantly monitoring the effective and efficient staffing of safety services, while alternately considering the desirability of consolidating all safety services into a single entity.

Policies:

- 3.1 Maintain high levels of emergency services and monitor safety services annually and evaluate safety services alternatives. Review, on an annual basis, the effectiveness of safety services relying on citizen input.

Implementation: Establish a minimum level of emergency service. Ensure that these services are responsive to the community's needs by periodically evaluating these services through the use of surveys and questionnaires.

ISSUE: SAFETY/HAZARDS MITIGATION

The following goals (4-6) and supporting policies express the city's concern regarding risks to citizens involving seismic, fire, and hazardous materials disasters.

Goal 4:

To minimize the risks to lives and property due to seismic activity.

Policies:

- 4.1 Restrict development in areas prone to seismic safety hazards.

Implementation: Comply with the provisions of the Alquist-Priolo Act requiring site-specific soils, geologic, or geotechnical engineering studies prior to development approval of sites potentially subject to seismic activities.

- 4.2 Critical facilities shall not be constructed in seismic zones 1B, 1C, or IRB, nor should they be placed within areas subject to liquefaction or inundation (within 60 minutes of dam failure).

Implementation: Prohibit the construction of any critical facilities in these areas in the absence of any appropriate mitigation and require measures to mitigate potential seismic hazards for structures lying within these areas.

- 4.3 New construction directly astride or across known active faults, or fault zones, should be regulated.

Implementation: Require appropriate engineering and design mitigations for structures proposed in these areas.

Goal 5:

To minimize the risk to lives and property due to fire hazards.

Policies:

- 5.1 Continue to support "mutual assistance" agreements between the fire departments of the local cities, Los Angeles County, and the U.S. Government.

Implementation: Continue to participate in the mutual assistance program.

- 5.2 Continue to support programs to reduce fire hazards of vegetation in areas of extreme to high fire risk. Such programs may take a variety of forms, but may include weed and brush removal and control and use of fire resistant plantings.

Implementation: Ensure that all buildings and areas be accessible to fire vehicles and firefighting equipment. Support fire department policy of controlled burns in high risk areas.

- 5.3 Provide an adequate level of fire equipment and personnel to protect the community.

Implementation: Develop a system of fire hazard mitigations based upon the probability of occurrence and number of people at risk. Replace out-of-date apparatus and equipment on a scheduled basis.

Goal 6:

To minimize the risks to lives and property due to the use and storage of hazardous materials.

Policies:

- 6.1 Regulate the delivery, use, and storage of hazardous materials within the city limits according to regulations and guidelines set forth by the Los Angeles County Fire Department.

Implementation: Prepare a hazardous materials storage permit ordinance.

This section of the Safety Element provides an assessment of risk for both natural and man-made hazards in the city. In addition, the safety plan provides a basis for emergency preparedness by indicating emergency evacuation routes and shelters in the city.

7.3.1 RISK ASSESSMENT

The Council on Intergovernmental Relations (CIR) guidelines separates risk into three distinct categories:

- Acceptable Risk. Level of risk below which no specific action by government is deemed to be necessary.
- Unacceptable Risk. The level of risk above which specific action by government is deemed to be necessary to protect life and property.
- Avoidable Risk. Risk not necessary to take because individual or public goals can be achieved at the same time, or less, total "cost" by other means without taking the risk.

Appropriate risk should be determined with maximum citizen input. In making this determination, the appropriate planning response to a potential hazard involves the judgment, either expressed or implicit, of the risk that is acceptable. There is no such thing as a perfectly hazard-free environment. Natural and man-made hazards of some kind and degree are always present. However, efforts can be productively undertaken to try to mitigate the consequences of known hazards.

In the context of the safety element, the problem of risk is one of public policy and the appropriate allocation of public resources to mitigate hazards. The city's responsibility is to provide a framework in which a communitywide, as opposed to an individual, response to the questions of risk can be meaningful. The first of several essential steps in the recognition of the presence of a hazard.

Once a problem has been recognized, considerable effort is required to evaluate its likely severity, frequency, and the characteristics of the area involved. This step should take into account the benefit/cost ratio of reducing hazard, acknowledge the intangibles involved, and compare it with that of other projects. The factors of voluntary and involuntary exposure to risk must be considered in reaching a decision.

Since it is the public that both receives and eventually pays for the protection, the choice of the level at which risk becomes "acceptable" is a matter of public involvement with the determination being made by their elected representatives.

The determination of a level of acceptance risk should be based upon the importance of a structure to the general welfare of the community (such as hospitals), the hazard a particular use may present to the larger community (the storage of volatile goods), the intensity of use or the density of occupancy (such as theaters, schools, and office buildings or apartments); and whether exposure to risk is a voluntary or involuntary action (as in stores, convalescent hospitals, jails). The acceptable level of risk for each type of structure must ultimately be determined by the cost the community is willing or able to incur.

The following discussion is intended to quantify risk and to present recommendations regarding acceptable risk where appropriate. Such recommendations are based upon technical findings as presented in the Public Safety Background Report.

Seismic Hazards

In this study, primary seismic hazards encompass both potential surface rupture and ground shaking. Although these two seismic hazards are obviously related, for purposes of better problem definition, each has been discussed separately below.

Surface Rupture

From analysis presented in the background report, the Sierra Madre, Raymond Hill, and Duarte faults must be considered capable of generating surface rupture. These faults should be thought of in terms of a zone rather than a single fault trace, consistent with this concept in Exhibit 7-1 and consistent with the findings contained in the background report. A "hazard zone" has been identified consisting of 1/8 mile on either side of the most active or projected active traces of each fault. It is within this hazard management zone that the most recently active segment of each fault or fault zone can be considered to exist. Each fault zone occurring within the hazard management zone most likely does not encompass the entire hazard management zone; however, this approach is consistent with current Alquist-Priolo legislative work being performed by the California Division of Mines and Geology in regard to active and potentially active faults.

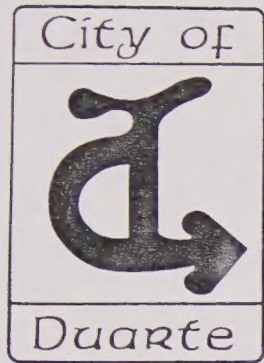
The hazard management zone should be thought of in terms of a special area requiring future geological investigation to determine the exact location and lateral extent of potential ground rupture. Such studies should be made consistent with guidelines established for conducting Alquist-Priolo geologic hazard zones investigations. The discussion of acceptable risk under ground motion is applicable to the problem of ground rupture.

Ground Motion

The technical analysis of earthquakes to be expected from faults affecting the study area has defined these events in terms of a magnitude and recurrence interval. The level of risk associated with each event is indicated by the recurrence interval in much the same manner as the risk from other natural hazards, such as flooding, is defined by a recurrence interval. For example, it is common practice to design flood-prevention works to accommodate the flows from a 100-year storm. Where a higher level of protection is desired, as for example along the Los Angeles River, the design levels are increased to accommodate the flows from storms occurring at roughly 300- to 500-year intervals.

The choice of a particular earthquake, for which protection is to be provided, involves a determination of acceptable risk. In general, the risk of occurrence decreases as the magnitude of the potential earthquake increases. Since the cost of providing protection increases as the magnitude of the "design earthquake" is increased, there is a point at which the cost of providing protection becomes prohibitive when considered in light of the cost involved. Design for the 100-year event should be considered minimum; where a high level of protection is desired, such as for hospitals, design levels should be increased to protect against earthquakes with longer recurrence intervals.

In Duarte, we are primarily concerned with the Sierra Madre, Raymond Hill, and San Andreas faults. Design magnitudes for three levels of "use" for earthquakes expected from these faults is shown in Table 7-1.



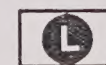
Legend



EXTREMELY HIGH FIRE HAZARD



HIGH FIRE HAZARD



LOW FIRE HAZARD

Fire Hazard Areas
Duarte General Plan

7740001-JUNE 1989



Michael Brandman Associates

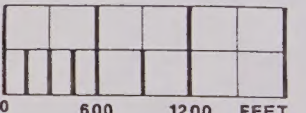




TABLE 7-1

DESIGN MAGNITUDES FOR LAND USE TYPES

<u>Use</u>	Approximate Recurrence Interval (years)	Expected Magnitudes (Source of Earthquake) Fault		
		<u>Sierra Madre</u>	<u>Raymond Hill</u>	<u>San Andreas</u>
Limited Occupancy (warehouses, automated manufacturing facilities, etc.)	50-100	-- ^a	5.0	8.5
Normal Occupancy (residences, normally occupied factories, etc.)	100-200	6.5	5.6	8.5
Critical Facilities (hospitals, fire and police stations, schools, critical utilities, etc.)	300-800	7.5	6.5	8.5

a Seismic history of the Sierra Madre Fault suggests that smaller earthquakes will probably not occur on this fault.

Source: Seismic Safety Element for the City of Duarte, 1975.

Based upon previous studies, the above criteria is recommended to be utilized as a minimum design in determining "acceptable risk" in Duarte.

The risk of an earthquake on the San Andreas Fault is a special case since a major event is considered imminent. As a result, all structures except possibly those for limited occupancy should be designed for an earthquake of magnitude 8.5 on the San Andreas Fault.

Flood Inundation

Decisions concerning acceptable risk relative to flood inundation comprise only those areas subject to inundation within the first 60 minutes following a dam failure (see Exhibit 7-6 in the background report section of this report). The principal reason for this judgment is that 1 hour should be sufficient in terms of emergency response

organizations and trained personnel to effect positive action to mitigate inundation effects on loss of life. In terms of acceptable risk relative to inundation, no attempt is made to segregate risk levels.

Fire Hazard

The risk of wide-spread fire in the southern urbanized portions of the city is rated low. The hillside areas to the north comprise two additional risk categories--high and extreme--based upon four determinants: (1) human proximity; (2) vegetative cover; (3) slope; and (4) access. The risk areas are shown in Exhibit 7-2. A summary of those factors that constitute each category of risk is listed below in Table 7-2.

TABLE 7-2
FIRE HAZARD RISK

Extreme Risk

Vegetation:	Chamise chaparral
Proximity:	Fronting developed areas and/or west of fire prone communities
Access:	Limited, topography extremely variable
Slope:	Steep (40+ percent)

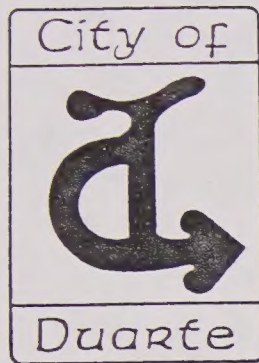
High Risk

Vegetation:	Woodland-grass
Proximity:	Ranging from areas fronting developments to back country
Access:	Somewhat limited
Slope:	Moderate (20 to 40 percent)

Low Risk

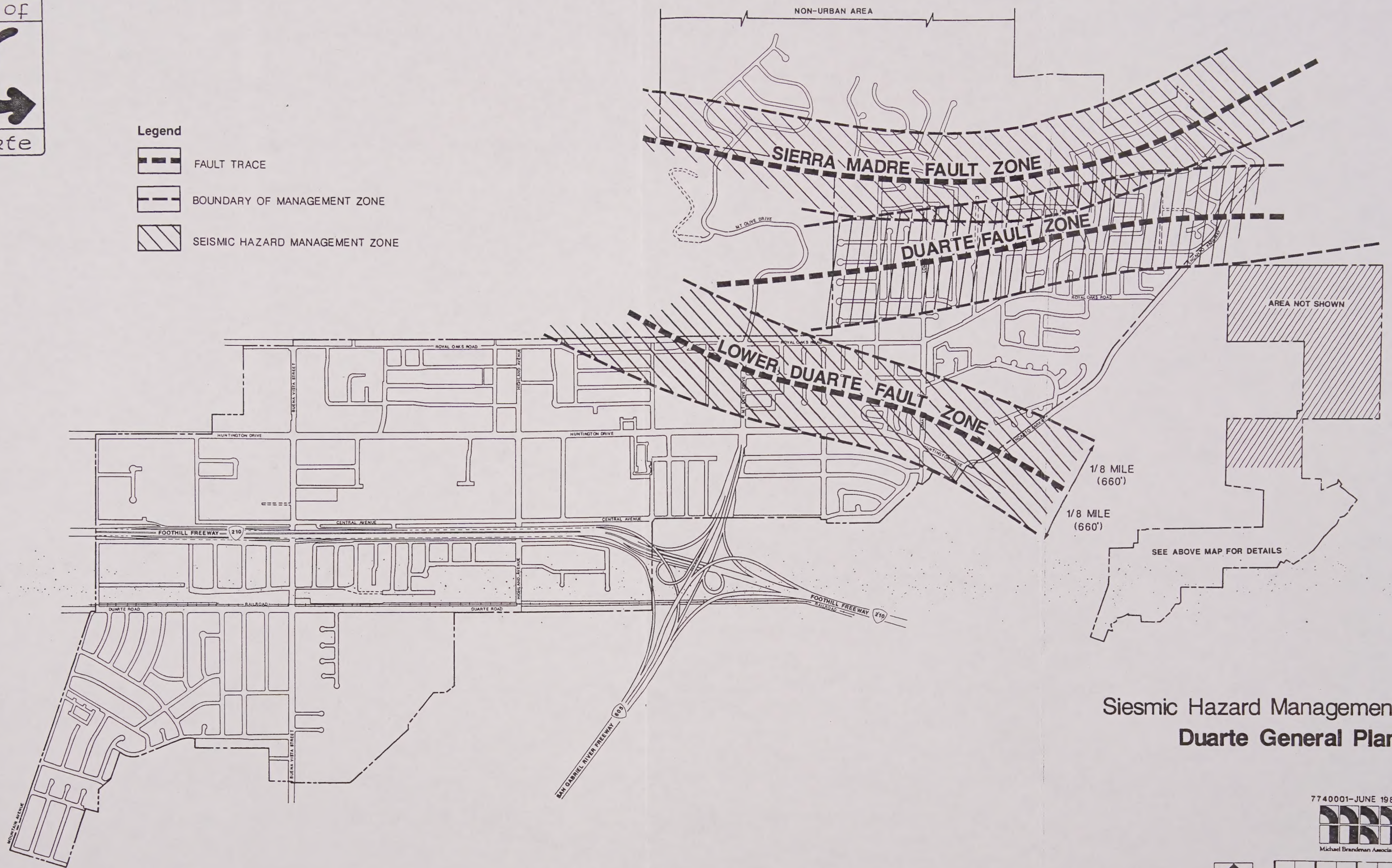
Vegetation:	Cultivated/urban--barren areas
Proximity:	Developed areas
Access:	Available
Slope:	Flat

Source: City of Duarte, 1975.



Legend

-  FAULT TRACE
-  BOUNDARY OF MANAGEMENT ZONE
-  SEISMIC HAZARD MANAGEMENT ZONE

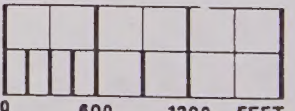


Siesmic Hazard Management Duarte General Plan

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7.3.2 EMERGENCY PREPAREDNESS

This section provides information that may reduce or minimize the effects of a man-made or natural disaster. In the event that a natural or man-made disaster will occur, the city should be prepared to handle and reduce the effects of such occurrence.

Fire and Flood Inundation Hazard Reduction

The most effective step in reducing fire hazard in Duarte would be to initiate a public awareness campaign. Such a campaign should principally be directed toward the elementary school age group as it is this group that is largely responsible for starting many of the disastrous fires in the past. Open house displays and fire fighting demonstrations have proven particularly effective in impressing younger children, as well as the general public, with the force and dynamics of fire.

Other steps effective in reducing fire hazards include fire breaks, special construction, brush removal, off-road vehicle inspection, prohibition of off-road vehicles in extreme and high fire hazard zones, and water reuse programs.

Aside from construction of earthquake resistant dams, substantial reduction of inundation potential will be difficult to accomplish. This is mostly due to the extent and patterns of urbanization. Through the process of "acceptable risk" determination, choices could be relative to land use/development restrictions in areas subject to inundation. In most cases, however, such decisions would likely be unacceptable economically.

As a result, the principal avenue of hazard reduction lies in the enforcement of design and construction of dams to accommodate any probable seismic force and secondary hazard that may occur at the dam site. The second major avenue would involve strengthening of existing community emergency preparedness programs to efficiently evacuate those areas within the inundation boundaries.

Seismic Hazard Reduction

Two basic concepts should be considered in the upgrading and enforcing of building codes involving seismic risk. First, the primary role of government as related to seismic hazards is protection against loss of life or serious injury of its citizens. To implement this concern, it should adopt and enforce a code for the design and construction of new structures that will protect them, at an acceptable level of risk, against death or serious injury. It can be said that a structure which is not a critical facility (critical facilities are a separate issue) has performed well in an earthquake if no one is killed or seriously injured. The structure may be so damaged that it is a total loss to the owner, but it is a success from the standpoint of public safety if there are no serious injuries. In this concept, the role of government is limited to providing for public safety. Any additional costs required to protect the structure would be at the owner's discretion.

An alternative concept is suggested by events following the San Fernando earthquake in which certain governmental agencies provided funds for repair of damaged structures. In many cases, it has not been necessary to repay a part of these funds, and the public as a whole has accepted at least a part of the cost of repairing structures that were underdesigned for the area in which they were built. If the public does not wish to accept the responsibility of potential federal spending, it could require that structures be designed to a level that would include protection against significant damage. This would be done on the assumption that if the public does not require appropriate design criteria, then they may have to pay the cost of repairing structures built in more hazardous areas.

The second basic concept is that certain critical facilities, such as hospitals, fire and police stations, and communications centers will be required to function at peak efficiency in the hours immediately following a damaging earthquake. The level of protection desirable for a home or an office building may not be adequate for the structures in which these necessary services are housed.

During the hours immediately following the San Fernando earthquake, most of the hospitals in the immediate area could not function because of damage; communication facilities at critical locations were not operative; and fire, police, and ambulance service was severely restricted. This experience emphasized the need for

a greater level of protection for facilities deemed to be critical due to a need to function in the hours immediately following a damaging earthquake (e.g., hospitals and communication facilities), or because of an overall requirement that the facility continue to operate (e.g., important governmental buildings).

Increased protection for critical facilities can be applied in two ways. One approach is to require that the structure be designed for an earthquake with a lower risk of occurrence. Critical facilities would be designed to withstand more intense shaking than noncritical facilities.

A second approach is related to "design level," an issue discussed previously. Buildings such as hospitals must not only remain intact, but must also continue to function in a manner such that potential victims of an earthquake can be treated. This not only requires a stronger building, but also greater attention to nonstructural items, such as elevators, lighting fixtures, stability of storage cabinets, etc. This differs from the first approach in that emphasis is placed on usability of the facility after the design seismic event.

In areas subject to potential ground rupture, the placement of critical facilities must be considered with great care so as not to construct across or directly astride an active fault trace. The key concern here is that mitigation of actual ground rupture through building design is questionable and, in most cases, considered impossible if displacement on the order of a few feet is anticipated.

Increased protection for critical facilities is a matter of public policy requiring public involvement at the decision stage and implementation in codes and ordinances by the elected representatives of the people. Public schools and hospitals are reviewed by the State Office of Architecture and Construction or the Division of Mines and Geology, but design criteria for other facilities are determined by local jurisdiction.

A systematic inspection and structural analysis of existing structures in Duarte should be undertaken. Such a program should be under the direction of the Department of Public Services, Division of Building and Safety. The most important existing structures are, of course, critical facilities and those designated as public buildings. It is with these buildings that the structural evaluation processes should begin.

An earthquake disaster plan should be formulated which would enable the city to be self-sufficient in the weeks following a severe earthquake, such as a magnitude 7.5 event on the Sierra Madre Fault.

This plan should be conceptualized as an extension of the existing emergency plan and should provide for emergency medical facilities, temporary shelter, emergency communications equipment, and emergency water and food supplies. Since a large earthquake will severely affect many cities and hundreds of thousands of people, the efforts of federal and state emergency services will be severely overextended. It is advisable that Duarte be prepared to serve itself and maintain continued functioning of necessary services rather than expecting adequate aid from outside organizations.

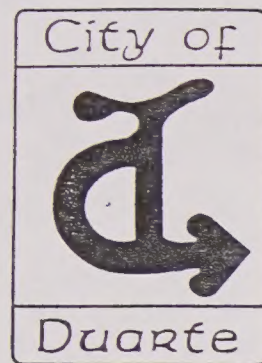
Public Awareness

A program to increase public awareness of earthquake, fire, and inundation safety should be initiated. The program could be presented as a series of community meetings or seminars, and a community handbook on disaster preparedness and procedures. The program should stress minimizing hazards in the home and precautions to be taken after the occurrence of the earthquake.

7.4 EMERGENCY EVACUATION ROUTES AND SHELTERS

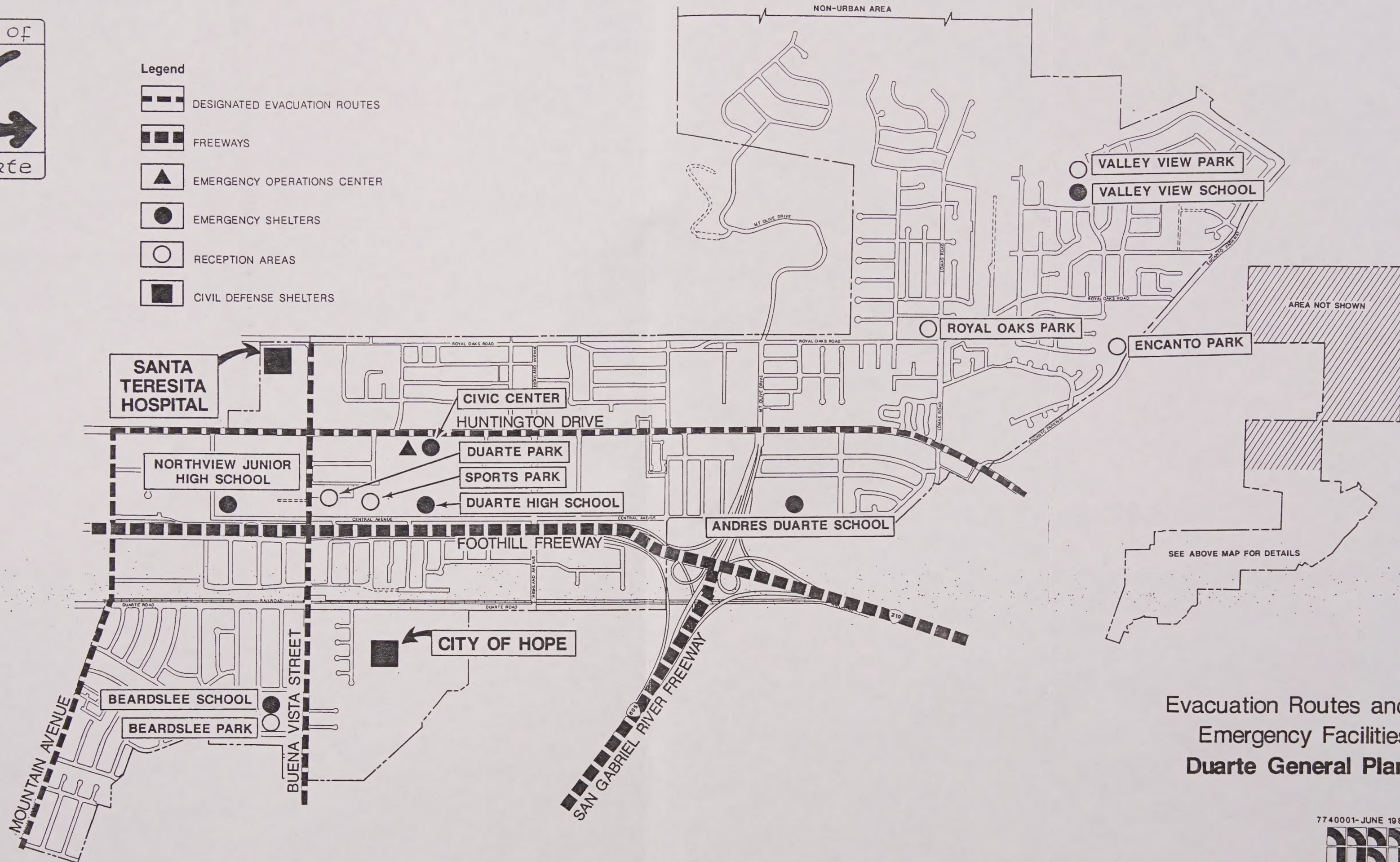
Huntington Drive, Buena Vista Street, and Mountain Avenue are the designated emergency evacuation routes in the city. The direction of travel on these roadways and any restrictions to vehicular movement will depend largely on the nature, location, and spatial characteristics of the event leading to the evacuation. In addition, these roadways are important routes for police and fire vehicles responding to emergency calls in the city. The designated emergency evacuation routes are indicated in Exhibit 7-3.

The emergency shelters and reception areas are indicated in Exhibit 7-3 and are described in Table 7-3. Emergency shelters are designed to provide short-term shelter for persons stranded in the city or left homeless in the event of a disaster. These shelters may also be used to dispense supplies, serve as first aid stations, and serve as public information centers. Reception centers are gathering/collecting areas where information, first aid, and supplies are dispensed and may serve as



Legend

-  DESIGNATED EVACUATION ROUTES
-  FREEWAYS
-  EMERGENCY OPERATIONS CENTER
-  EMERGENCY SHELTERS
-  RECEPTION AREAS
-  CIVIL DEFENSE SHELTERS

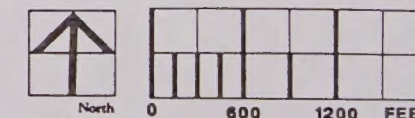


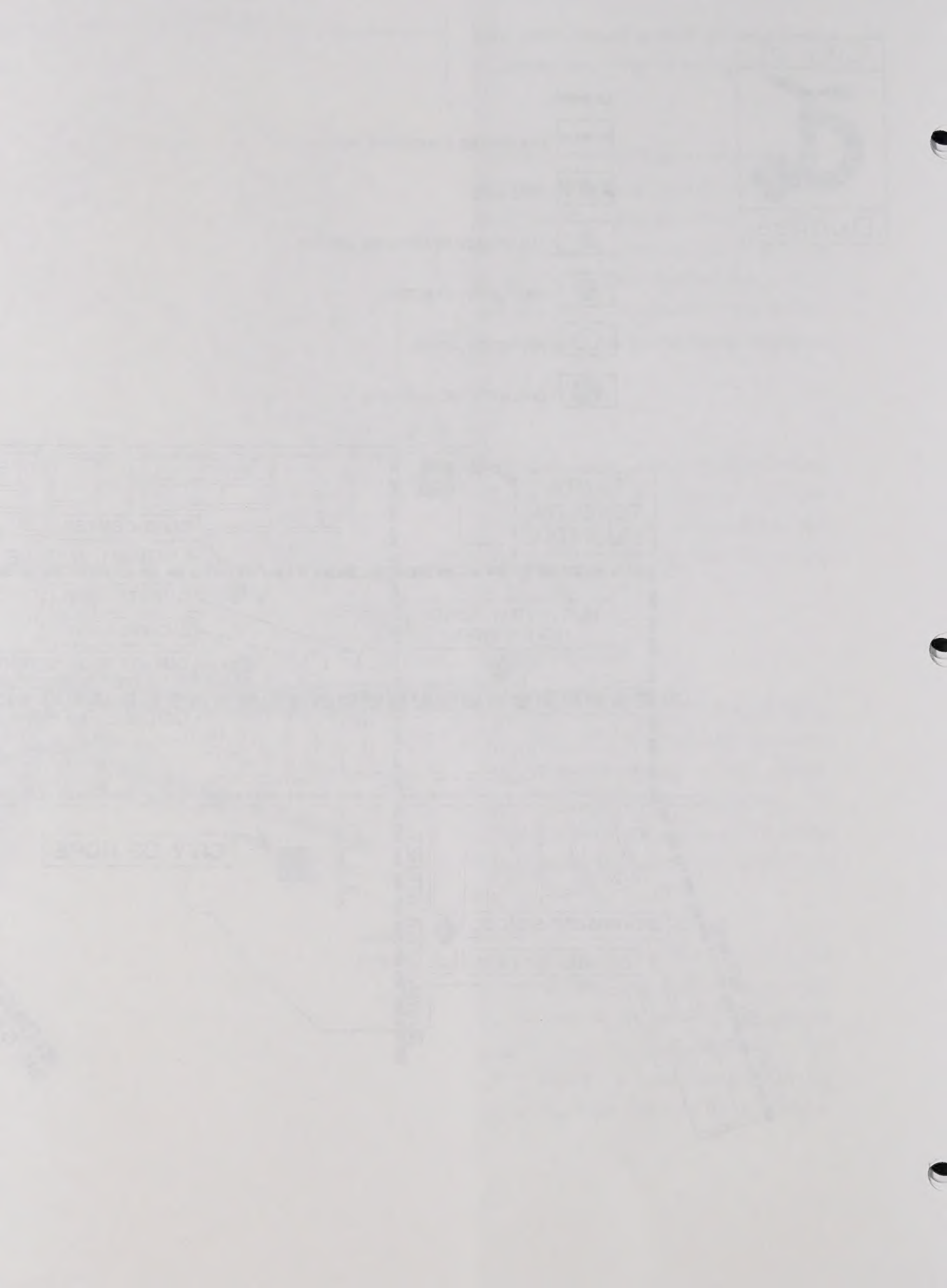
Evacuation Routes and
Emergency Facilities
Duarte General Plan

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gathering areas for citywide evacuation. Finally, designated civil defense fallout shelters are identified according to the Los Angeles County Emergency Preparedness Commission.

TABLE 7-3
EMERGENCY SHELTERS/RECEPTION AREAS

<u>Facility</u>	<u>Address</u>	
City Hall	1600 Huntington Drive	Emergency Operations Headquarters
Andes Duarte School		Emergency Shelter
Beardslee School		Emergency Shelter
Maxwell School		Emergency Shelter
Royal Oaks School		Emergency Shelter
Valley View School		Emergency Shelter
Northview Intermediate School		Emergency Shelter
Duarte High School		Emergency Shelter
Beardslee Park	2000 Buena Vista St.	Reception Area
Valley View Park	205 Mel Canyon Rd.	Reception Area
Sports Park	1401 Central Ave.	Reception Area
Duarte Park	1344 Bloomdale St.	Reception Area
Royal Oaks Park	2627 Royal Oaks Dr.	Reception Area
Encanto Park	Encanto Pkwy North of Huntington Dr.	Reception Area
Warner Bldg., City of Hope	1500 E. Duarte Rd.	Civil Defense Shelter
Main Medical Bldg., City of Hope	1500 E. Duarte Rd.	Civil Defense Shelter
Familian Bldg., City of Hope	1500 E. Duarte Rd.	Civil Defense Shelter
Santa Teresita Hospital Administration Bldg.	1210 W. Royal Oaks Dr.	Civil Defense Shelter
Santa Teresita Hospital, Building A	1210 W. Royal Oaks Dr.	Civil Defense Shelter
Santa Teresita Hospital, Building B	1210 W. Royal Oaks Dr.	Civil Defense Shelter

Source: City of Duarte, 1989.
The Emergency Preparedness Commission for the County of Los Angeles, 1980.

7.5 INTRODUCTION

This section serves as the technical appendix to the City of Duarte General Plan Safety Element. This section also documents the existing public services that would respond in the event of an emergency.

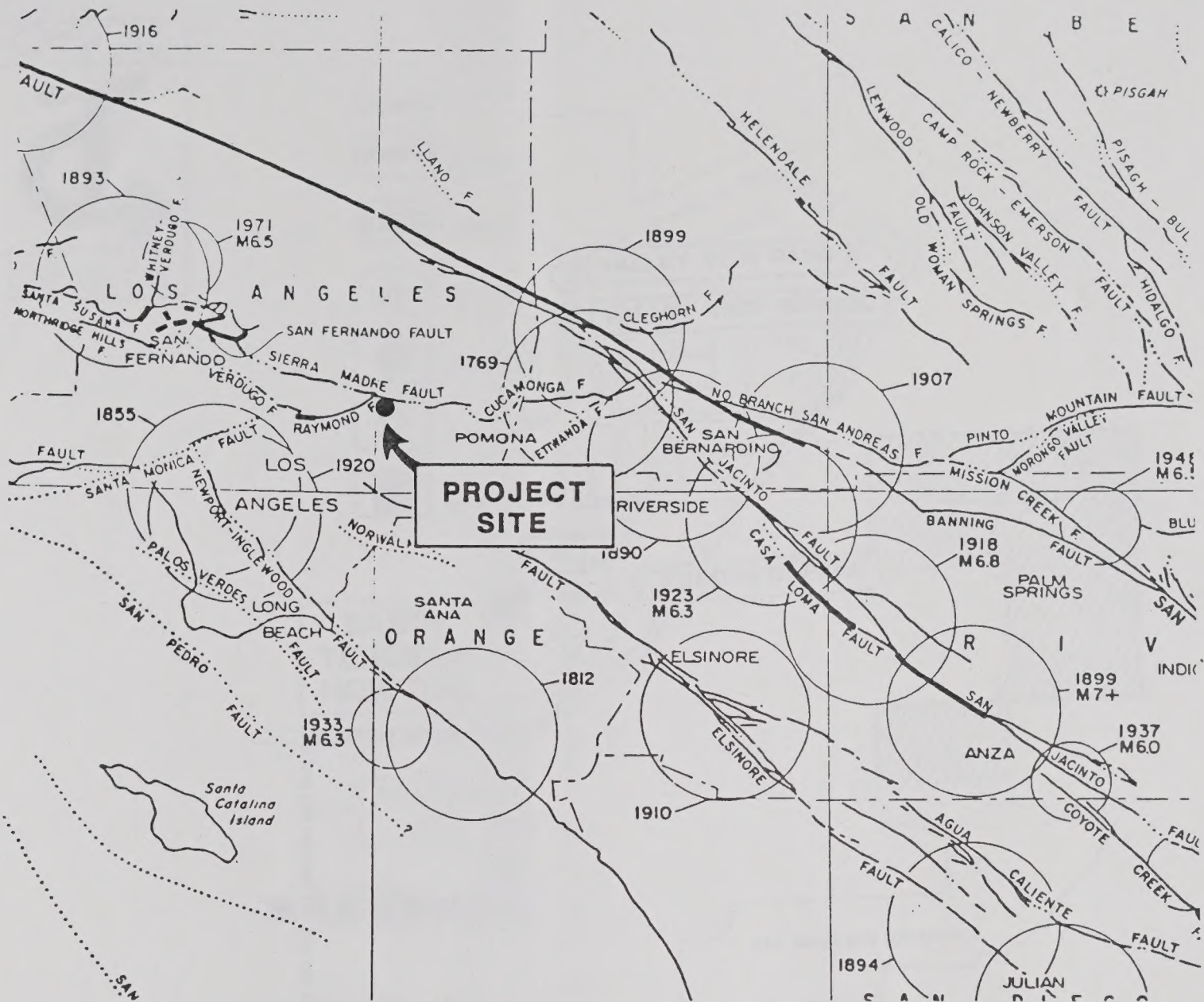
7.6 IDENTIFICATION OF HAZARDS

7.6.1 SEISMIC HAZARDS

The City of Duarte is located in the north-central area of the west San Gabriel Valley, just east of the City of Los Angeles. Duarte's topographical terrain is divided into three districts: the San Gabriel Mountain range of the Angeles National Forest; the foothills and canyons of the San Gabriel Mountains; and alluvial slopes of the mountains. The latter is the area that contains Duarte's urban development.

The city is located in a seismically active region with a number of faults surrounding the area. These faults are indicated in Exhibit 7-4. A few of the active faults--Sierra Madre and San Andreas--are capable of affecting the city. Potentially active faults in the immediate vicinity of the city are the Duarte and Raymond Hill faults. Seismic hazards are indicated in Exhibit 7-5.

Table 7-4 identifies the historic earthquakes that have affected the southern California region. Earthquakes prior to the 1933 Long Beach earthquake have been assigned approximate Richter magnitudes based upon historical accounts. Past seismic events would indicate that the city has been free of major damaging earthquakes for at least 125 years. The minimum distance to significant faults in the vicinity of the site is shown on Table 7-5.



MAJOR EARTHQUAKES AND RECENTLY ACTIVE FAULTS IN THE SOUTHERN CALIFORNIA REGION

EXPLANATION*

ACTIVE FAULTS

Total length of fault zone that breaks Holocene deposits or that has had seismic activity

Fault segment with surface rupture during an historic earthquake, or with aseismic fault creep

○ Holocene volcanic activity
(Anibay, Pisgah, Cerro Prieta and Salton Buttes)

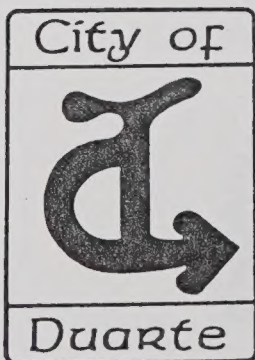
EARTHQUAKE LOCATIONS



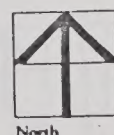
Approximate epicentral area of earthquakes that occurred 1769-1933. Magnitudes not recorded by instruments prior to 1906 were estimated from damage reports assigned an intensity VI (Modified Mercalli scale) or greater. This is roughly equivalent to Richter 6.0-6.5. Moderate earthquakes, 7 major and one great earthquake (1857) were reported in the 164-year period 1769-1933.



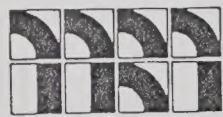
Earthquake epicenters since 1933, plotted from improved instruments. 29 moderate and three major earthquakes were recorded in the 40-year period 1933-1973.



Major Earthquakes and Recently Active Faults in the Southern California Region Duarte General Plan



North



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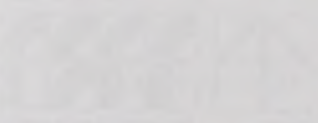
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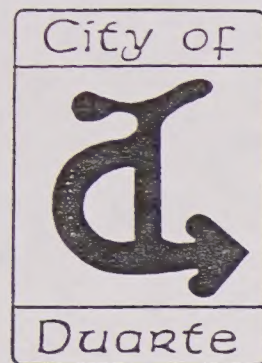
Exhibit 7-4

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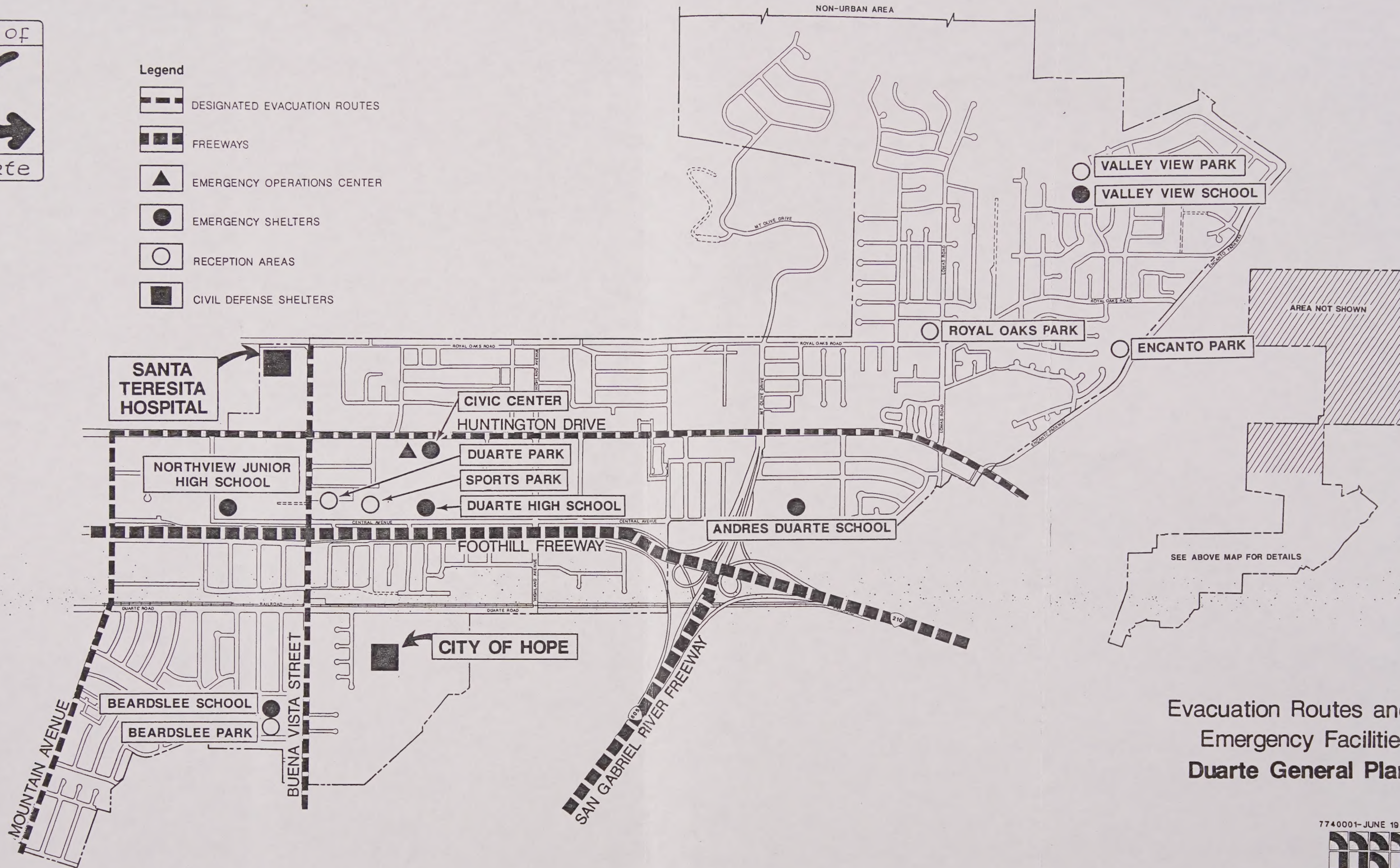
Major Earthquakes and Recently Active
Faults in the Southern California Region
Quaternary Geologic Map





Legend

-  DESIGNATED EVACUATION ROUTES
-  FREEWAYS
-  EMERGENCY OPERATIONS CENTER
-  EMERGENCY SHELTERS
-  RECEPTION AREAS
-  CIVIL DEFENSE SHELTERS

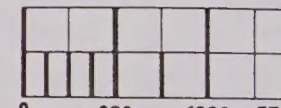


Evacuation Routes and
Emergency Facilities
Duarte General Plan

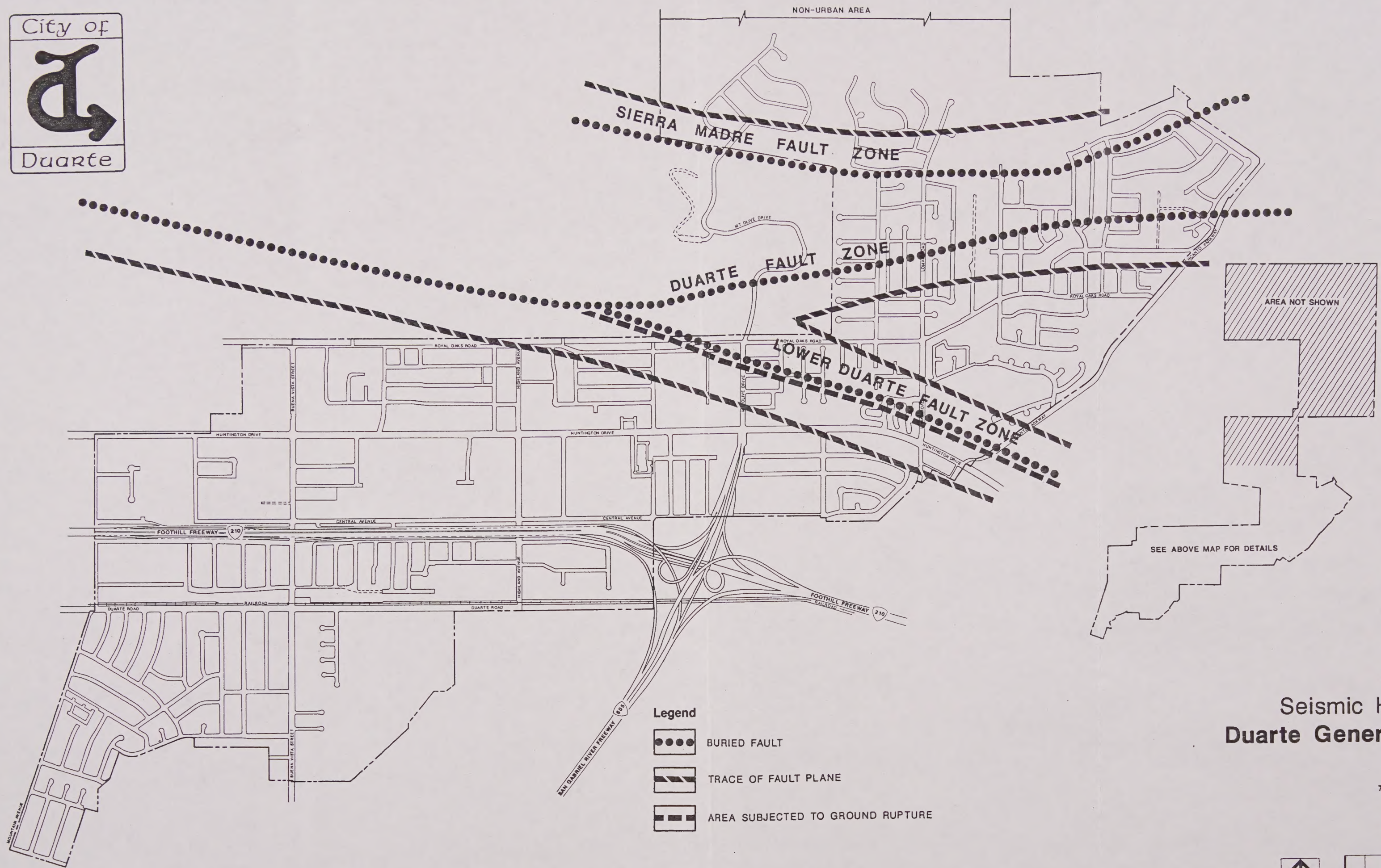
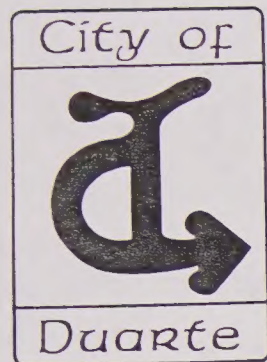
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Seismic Hazards Duarte General Plan

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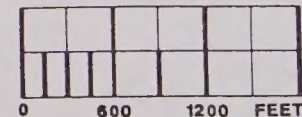
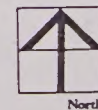


Exhibit 7-5



TABLE 7-4

HISTORIC EARTHQUAKES THAT HAVE AFFECTED THE CITY

<u>Date</u>	<u>Fault or Location</u>	<u>Estimated Richter Magnitude^a</u>
1855	Newport-Inglewood	6.0
1857	San Andreas	8.9
1883	San Gabriel Mountains	6.0
1920	Newport-Inglewood	5.0 to 5.5
1925	Santa Barbara	6.3
1933	Newport-Inglewood (Long Beach)	6.3
1941	Torrance-Gardena	6.5
1941	Santa Barbara	6.0
1971	San Fernando	6.4
1987	Unnamed fault near Whittier	5.9

a Richter magnitudes are estimated prior to 1933 and are based on historical accounts.

Source: Albee et al., 1969.

TABLE 7-5

MAXIMUM CREDIBLE/PROBABLE EARTHQUAKE

<u>Fault</u>	<u>Maximum Credible Magnitude (Richter)</u>	<u>Maximum Probable Magnitude (Richter)</u>
Raymond Hill	7.5	6.5
Whittier	7.5	6.5
Sierra Madre	6.5	6.5
Verdugo	6.5	6.5
Malibu Coast-Santa Monica-Hollywood	7.5	6.5
Newport-Inglewood	7.0	6.5
San Andreas	8.3	8.3
Norwalk	6.5	7.0

Source: Greensfelder, 1973

The Whittier Fault is a northwest-trending, strike-slip fault with the closest fault trace located 10 miles east of the city. According to geologists, the Whittier Fault can produce a maximum credible earthquake of Richter magnitude 7.5. It is estimated that the maximum probable earthquake along the Whittier Fault would be on the order of Richter magnitude 6.5.

The Sierra Madre fault system consists of a series of east/west-trending, north-dipping thrust faults, with the closest trace located 21.5 miles north/northeast of the city. The San Fernando segment of the Sierra Madre fault zone produced the m6.4 San Fernando earthquake in 1971. Seismologists indicate that the recurrence interval at any one point on this fault ranges between 200 and 5,000 years.

The Newport-Inglewood fault system consists of a series of northwest-trending, strike-slip faults. The 1933 Long Beach earthquake, with a magnitude 6.3, and 1920 Inglewood earthquake, with an estimated magnitude 5.0 to 5.5, occurred on faults located within the Newport-Inglewood fault system. The Newport-Inglewood Fault is expected to be capable of a maximum credible earthquake of Richter magnitude 7.0. Based upon the historic record, it is estimated that the maximum probable earthquake along the Newport-Inglewood Fault would be on the order of Richter magnitude 6.3 to 6.5.

The San Andreas Fault is a major northwest-trending, right-lateral, strike-slip fault which, at its closest point, is located approximately 50 miles northeast of the city. The San Andreas is active, with the most recent earthquake on the central section occurring in 1857. The magnitude of this earthquake has been estimated to be greater than 8 on the Richter scale. The recurrence interval on the central portion of the San Andreas has been estimated at 126 to 300 years. The San Andreas is assumed to be capable of producing a maximum credible earthquake of Richter magnitude 8.25. Based upon this historic record, it is also estimated that the maximum probable earthquake along the San Andreas would be on the order of 8.25.

The Sierra Madre fault system extends from Cajon Pass on the east to the San Fernando area on the west. This fault system consists of several components that include the Cucamonga, Sierra Madre, San Fernando, Santa Susana, and San Cayetano faults. The Duarte and Lower Duarte faults are associated with the Sierra Madre

fault system which places the City of Duarte at a risk of experiencing a potential earthquake.

Recent activity of this fault system is the 1971 San Fernando earthquake. The magnitude of this earthquake was 6.4 on the Richter scale. It has been established that this fault zone is active and the source of potentially damaging earthquakes. The recurrence interval on the fault system has been estimated at 100 years with a magnitude of 6; 300 years at 7 magnitude; and 800 years at 8 magnitude.

The other closest known active fault is the Raymond Hill Fault. The Raymond Hill Fault is a generally northeast-trending, high-angle, reverse fault that also has a significant left-lateral component of movement. Seismologists indicate that the recurrence interval for the Raymond Hill Fault is probably somewhat less than 3,000 years, with the most recent documented event occurring approximately 1,600 years ago. The Raymond Hill Fault is classified by the state geologist as being potentially active. This places the City of Duarte at risk of experiencing a potentially damaging earthquake.

The probability of an earthquake occurring on the potentially active Raymond Hill, Norwalk, Verdugo, or Malibu Coast-Santa Monica-Hollywood faults during the design life of the structures (100 years) is considered remote. The faults considered the most likely sources of strong ground shaking at the site during the design life of the structures are the Whittier, Newport-Inglewood, and San Andreas.

The most recent significant seismic activity in the Southern California region occurred along a previously unknown fault near Whittier. The earthquake, which occurred October 1, 1987, had an estimated Richter magnitude of 5.9. The epicenter of this earthquake was located in the vicinity of Whittier Narrows between Rosemead and Montebello.

Recent geological studies indicate these are at least two previously unknown faults similar to the one that was responsible for the 1987 Whittier earthquake. These two faults are approximately five miles deep and begin in the vicinity of downtown Los Angeles and extend in a southwesterly direction towards the ocean. According to geologists, seismic activity along either fault could have a more devastating impact on the Los Angeles metropolitan area than the major earthquake postulated along the San Andreas fault zone.

Residents, employees, and visitors in the city are exposed to seismic hazards that are commonly found throughout the region. The degree of exposure or risk is no greater within the city area than that expected from new development located elsewhere in the region. The primary effects of an earthquake, including ground shaking, liquefaction, and tsunamis are described in the following paragraphs.

Ground Shaking

Movement on any of the previously described active or potentially active faults may result in ground shaking at the building sites. The effects of ground shaking will be mitigated if buildings are designed and constructed in conformance with current building codes and engineering practice.

Stability and Liquefaction

Landslides represent one step in the natural erosion process in the mountains. Landslides, therefore, should be considered geologic hazards rather than hazards with association to earthquakes. The prime factor for landslides is the condition of the slope. Any kind of movement can trigger a landslide, whether it be an earthquake, heavy rain, or grading of a construction site. There are a number of areas in the northernmost wilderness portions of the city where landslides and/or unstable slopes are present.

The City of Duarte is not in or close to a potential liquefaction zone. The closest zone of potential liquefaction is an area near the City of El Monte.

Tsunamis, Seiches, and Flooding

The city is located approximately 30 miles from the Pacific Ocean at an elevation of 500 feet above sea level. Therefore, the risk of damage from seismic sea waves (called Tsunamis) need not be considered. No large bodies of water are located such that they would adversely affect the site in the event of seiches (oscillations in a body of water due to earthquake shaking).

7.6.2 FLOOD HAZARD

The Los Angeles County Flood Control District operates and maintains an extensive network of flood-control facilities. The flood control system is designed to accommodate the standard project flood. The standard project flood is defined by the Army Corps of Engineers as follows:

"Standard Project Flood. The flood that may be expected from the most severe combination of meteorological and hydrological conditions that are considered reasonably characteristic of the geographical area in which the drainage basin is located, excluding extremely rare combinations."

In the event of a failure of the Morris Dam or the San Gabriel Dam, portions of Duarte would be inundated. The flood would last for approximately 1 hour. The velocity and height of the water would rapidly diminish at the mouth of the San Gabriel Canyon.

Failure of Sawpit Dam would inundate portions of Monrovia and Duarte. This flood would last approximately 25 minutes. The potential inundation areas and the elapsed time between dam failure and the arrival of flood waters is indicated in Exhibit 7-6.

7.6.3 FIRE HAZARDS

The environmental setting of Duarte lends the city to be susceptible to a range of fire hazards from wildland fires to urban fires. Fires in undeveloped areas result from the ignition of accumulated brush and woody material. These kind of fires are termed wildland fires. Such fires can burn large areas and cause considerable damage to structures, watershed, and natural habitat for animals.

Urban fires usually originate from sources within the structures, such as substandard electrical wiring, faulty heating systems, people smoking in bed, children playing with matches, and the improper use of flammable liquids. In addition, urban fires may result from industrial plants, storing or manufacturing chemicals located in the city, and in surrounding areas that can impact the city.

Additionally, the transport of chemicals to and from these plants presents a public safety issue. A few major arterials cross the city linking freeways and railroads to

plants using, producing, or discarding hazardous materials. These transportation routes may carry a variety of materials that, in the event of an accident, would pose health risks to Duarte residents. Fire hazard zones for the City of Duarte are delineated in Exhibit 7-2.

7.6.4 HAZARDOUS MATERIALS

Industrial areas in Duarte are not concentrated in one place; rather, they are scattered across the city. These areas are zoned for light industry.

The most serious hazards are those associated with the production, transportation, and storage of petroleum, chemical, and potentially toxic or explosive products. Recent industrial fires in local southern California cities illustrate the dangers of volatile products. Technological developments continue to upgrade the level of safety associated with these products, but they remain a serious hazard in any urban area. Another potential hazard related to industrial fire hazards are those created by utility lines, primarily gas lines and overhead electrical power lines.

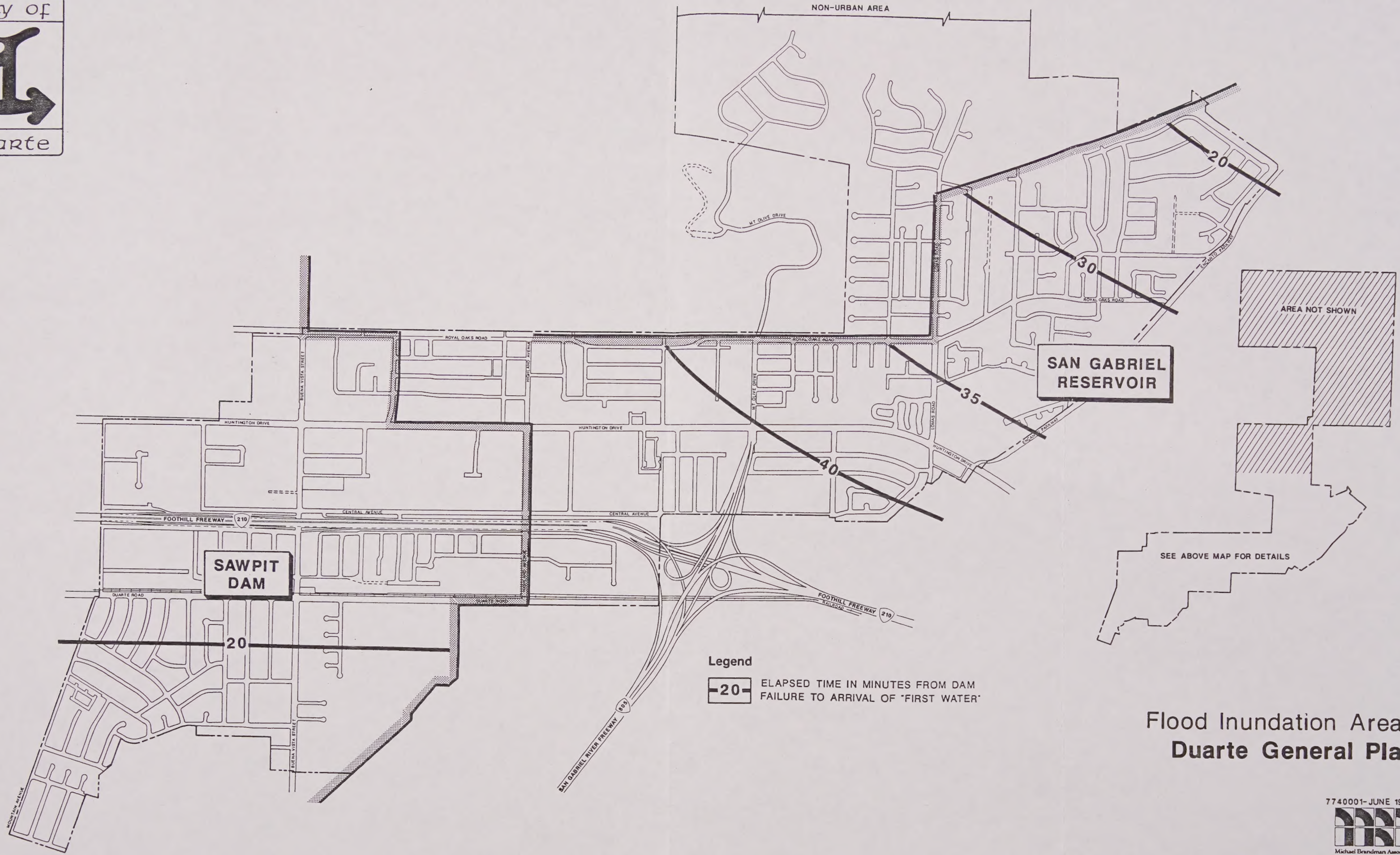
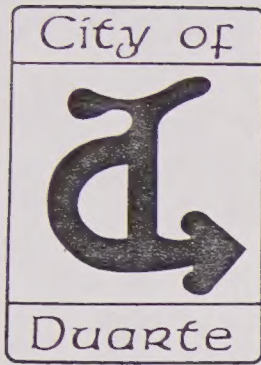
The presence of subsurface contamination due to urban activities is directly correlated with the type of past and present land use. Naturally occurring hazardous soil conditions are generally attributed to unique geologic conditions that may result in methane gas accumulations, radon, and other hazardous substances.

7.7 EMERGENCY SERVICES

7.7.1 LAW ENFORCEMENT

Law enforcement services are provided via a contract with the Temple City Sheriff Station, located at 8838 East Las Tunas Drive, in Temple City. The contract services provided by the station are as follows:

- Midnight to morning 2 one-man patrol cars
- Daytime 2 one-man patrol cars
 - 1 crime prevention car
 - 1 team leader car
 - 1 community service officer
 - 1 S.A.N.E. deputy
- Nighttime 4 one-man patrol cars

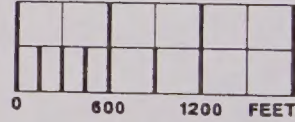


Flood Inundation Areas
Duarte General Plan

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The most common crimes committed in the city include petty and grand theft, residential and auto burglary, robbery, and battery. Presently, there is no single place or area in the city in which reported crimes are concentrated. Level of service is considered adequate.

7.7.2 FIRE PROTECTION

Fire protection/prevention services are provided by the Los Angeles County Fire Department. The primary station serving the city is located at 1105 Highland Avenue in Duarte. The station is equipped with two engine companies and one patrol vehicle, and is staffed by eight men.

The fire squad in the City of Industry provides hazardous material monitoring for the city through an agreement with the county fire department. Service is considered adequate.

7.7.3 CLINIC/HEALTH SERVICES

Duarte is home to the City of Hope, one of the most prestigious health care research centers in the country. Santa Teresita Hospital is located in northwest Duarte. Trauma centers serving the city include Queen of the Valley Hospital in West Covina and Huntington Memorial in Pasadena. Recent budgetary strain on the trauma care network has drastically reduced the number of facilities offering trauma care in southern California. Provided these two centers remain open, the city is provided with better than average trauma care.

Paramedic services are provided by a paramedic unit in Azusa for the area north of Duarte Road. The area south of Duarte Road is serviced by a paramedic unit in Baldwin Park. Emergency cases are usually taken to either Santa Teresita Hospital in Duarte or Arcadia Methodist Hospital. Some cases are taken to the trauma centers serving the city.

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